

BEST AVAILABLE COPY

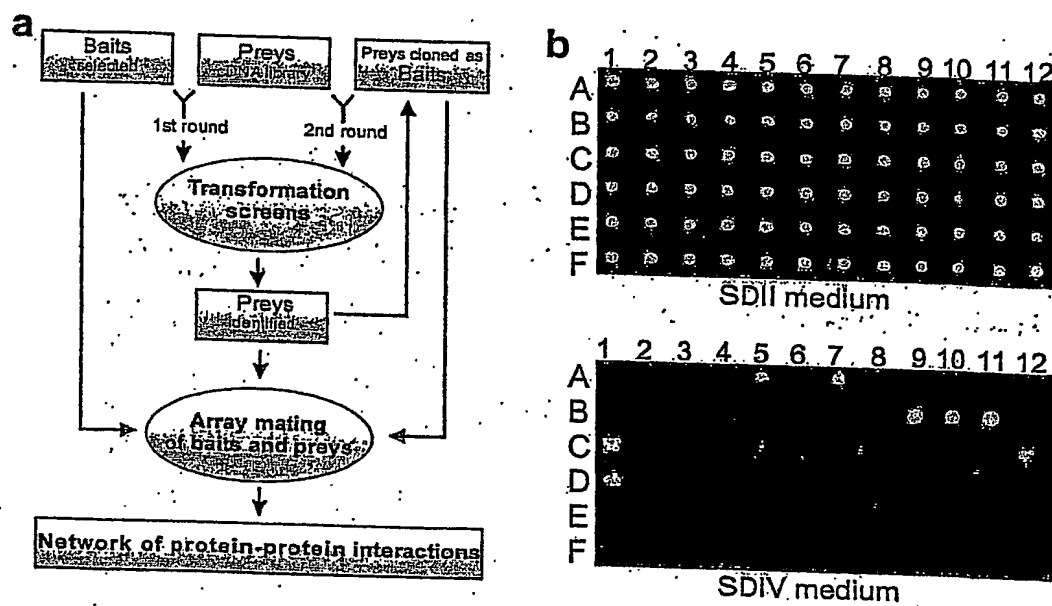
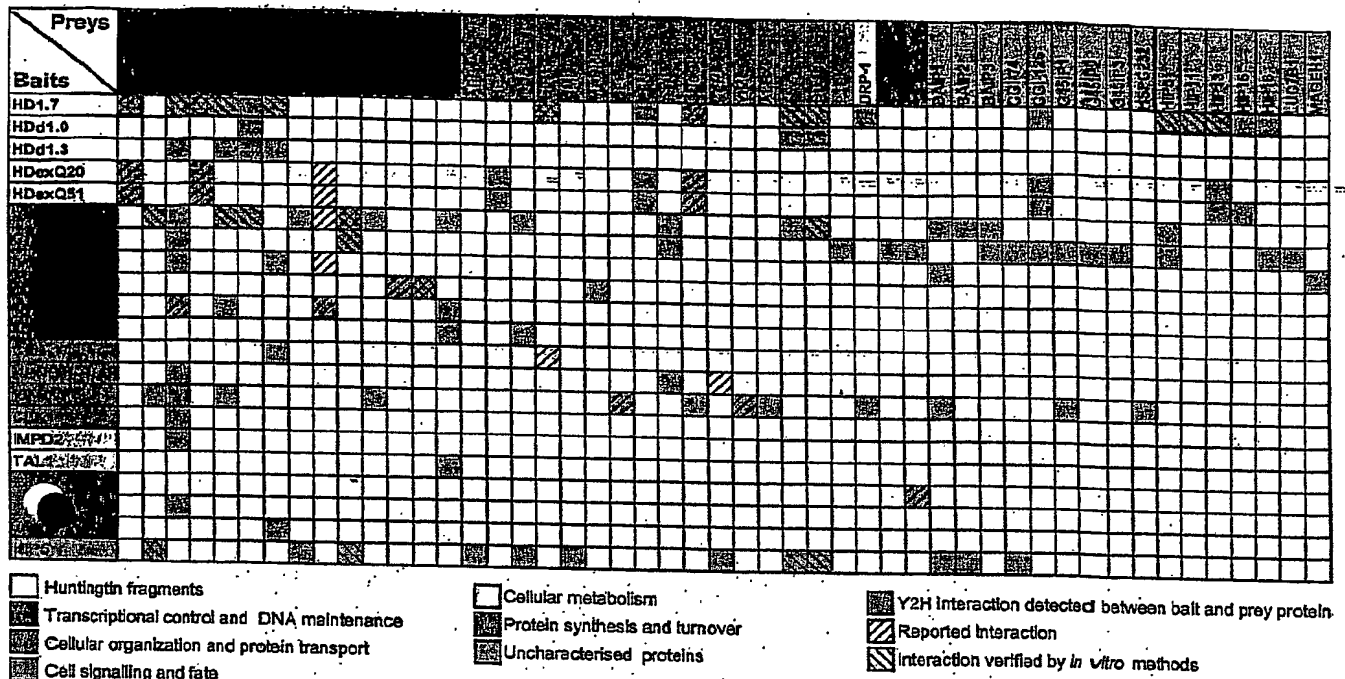


Figure 1

BEST AVAILABLE COPY

a



b

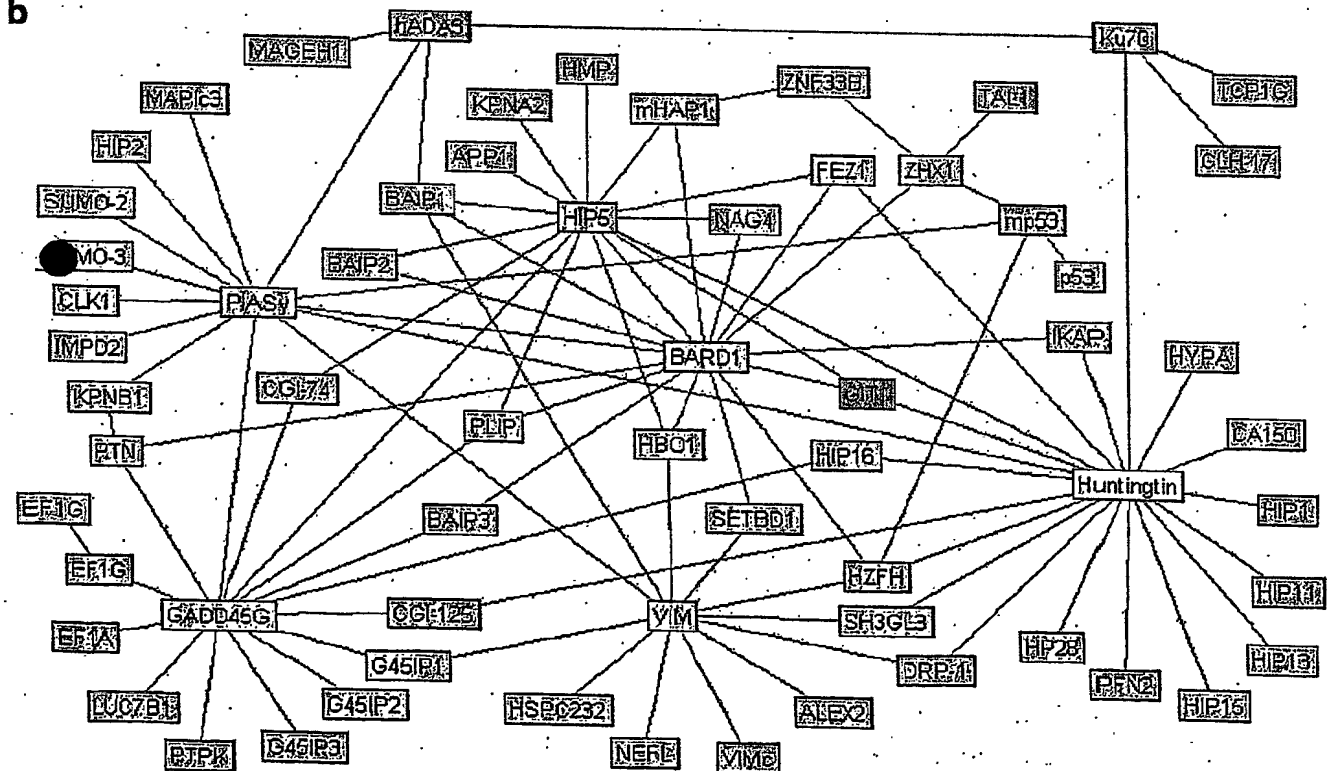


Figure 2

BEST AVAILABLE COPY

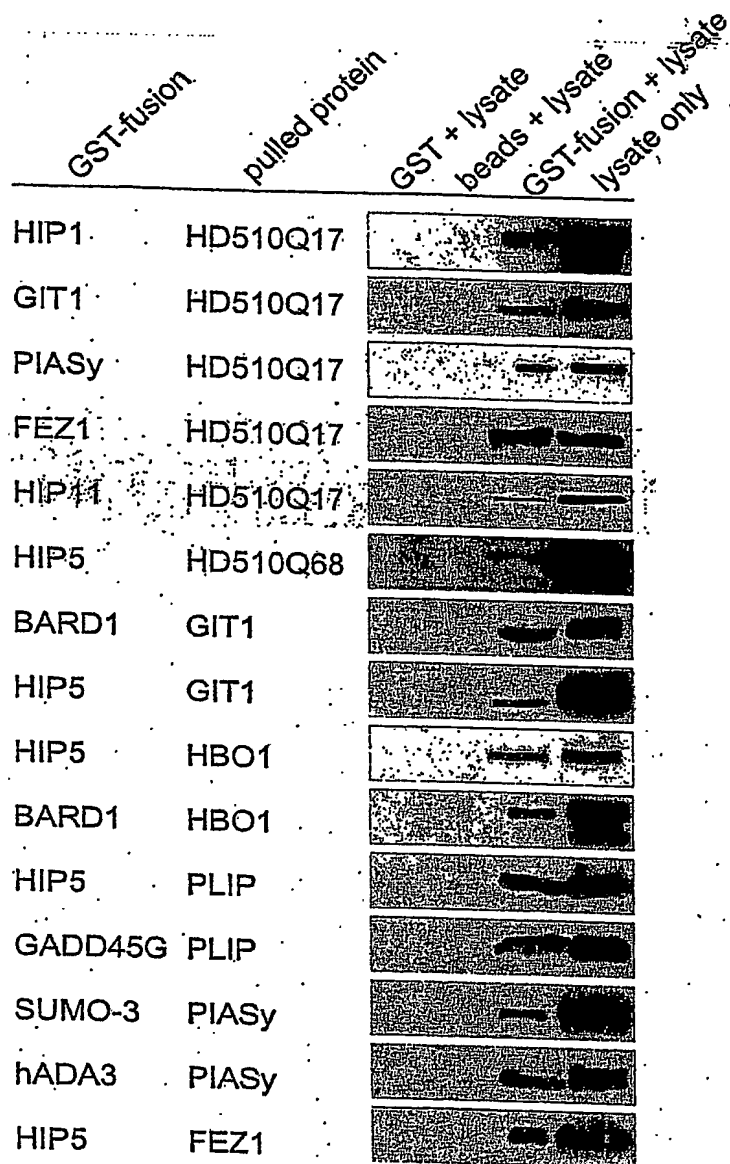


Figure 3

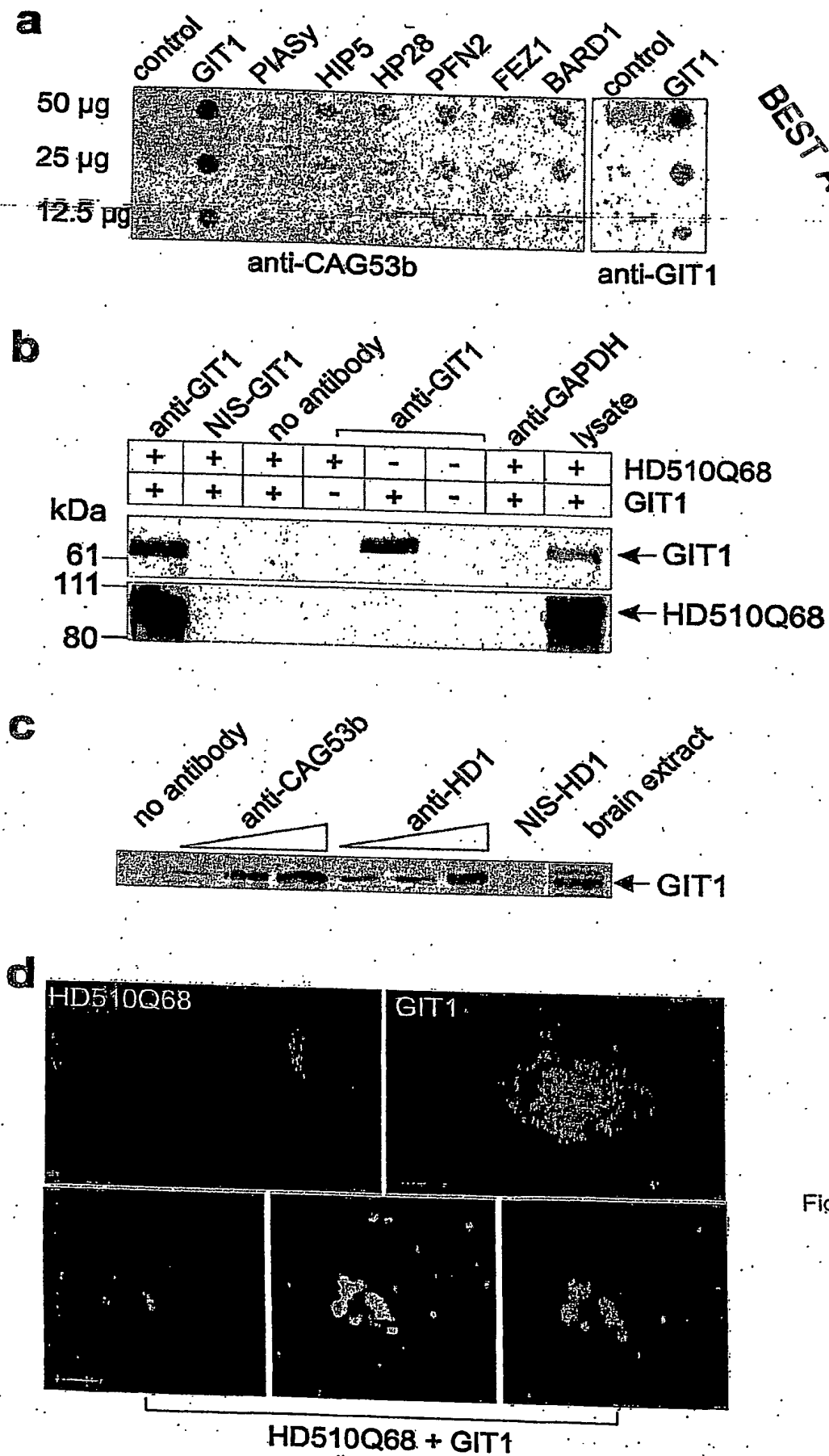
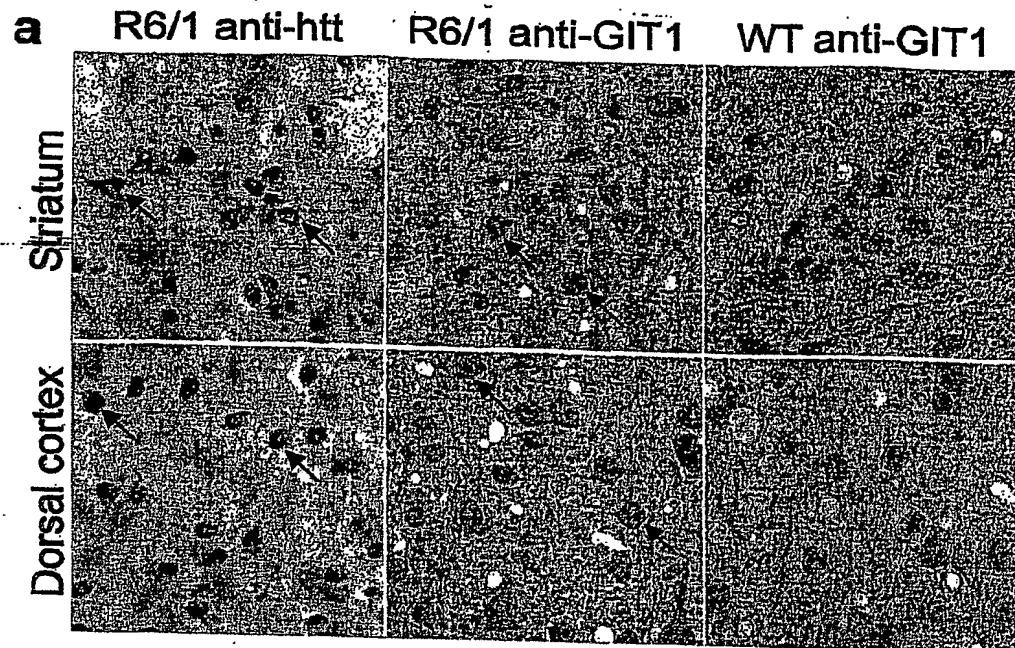


Figure 4



BEST AVAILABLE COPY

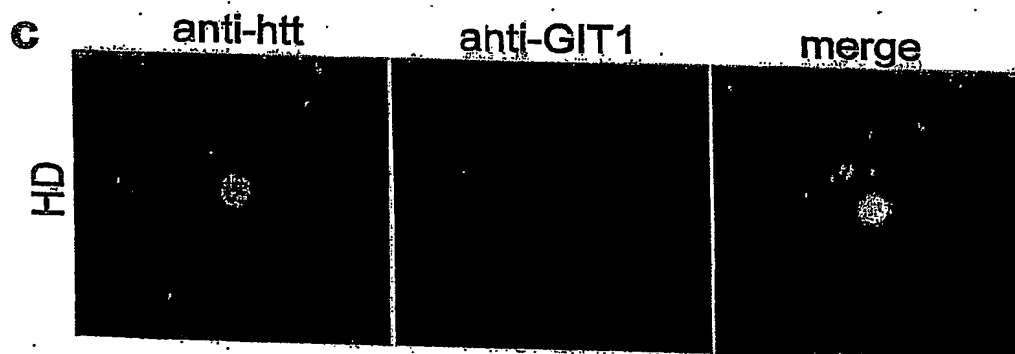
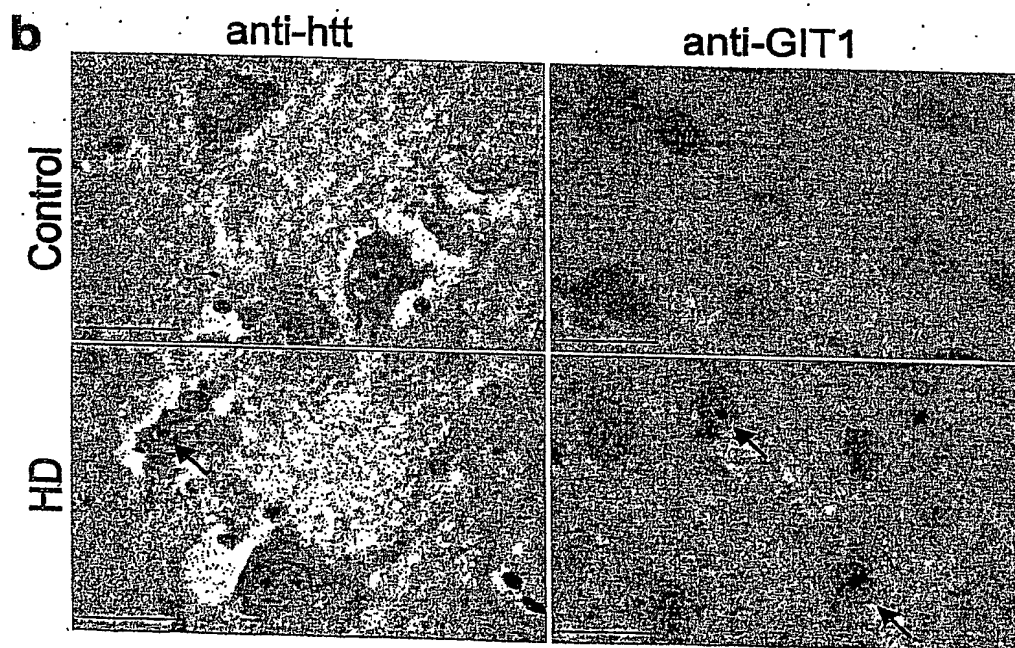


Figure 5

>ALEX2
 AESVVGAAAMASAIAPPPGVTEALGAAEAPAMAGAPKVAEAPREAE TSRAAVPPGTVVPTEA AAPTE
 VTEGPGVAAPT KVAEAPGVASPT EAAEAPVPATPTGAAAPTGA AESPGTSGSPRTAVVPGT SAAKK
 ATPGAHTGAIPKATSATGAVPKGGGKGVTRSRNGGKKGKKS KVEVDELGMGFRPGDGA AAAAAS
 ANGGQAF LAEVPDSEEGESGWTDTESDSDSEPETQRRGRGRPVAMQKRPPFPYEIDEILGVRDLRK
 VLALLQKSDDPFIQQVALLT LSNANYSCNOETIRKLGGLPI IANMINKTDEPHI KEKALMAMNNLS
~~ENYENQGRLEQVAMNRVMBD IMASNENSAVQVGLKFLTNMTI TNDYQHLLVNSIANFFRLLSQGGG~~
 KIKVEILKILSNFAENPDMLKKLLSTQVPASFSSLYNSYVESBILINALTLFEI IYDNLRAEVFNY
 REFNKGSLFYLCTTSGVCVKIRALANHHDLLVKVKVI KLVNKF
 >APP1
 EEEEE SFPPQVDDYFVEPPQAE EEEETVPPSSHTLAVVGKVTPTPRPTDGVDIYFGMPGEI SEHE
 GFLRAKMDLEERRMRQINEVMREWAMADNQSKNLPKADRQALNEHFQSI LQTL EEQVSGERQRLVE
 THATRVIALINDORRAALEGFLAALQADPPQAERVLLALRRYLRAEQKEQRHTLRHYQHVA AVDPB
 KAQQMRFOVHTHLQVIEERVNQSLGLLDQNPHLAQELRPQIQELHSEHLGPSELEAPAPGGSSED
 KGGQLQPPDSKDDTPMTLPKGSTEQDAASPEKEKMNPLEQYERKVNASVPGVSLSTHRRFRGMSWHQ
 LGQGC PVRLCRVC
 >BAIP1
 RPRTKMATAMYLEHYLDSIENLPCELQRNFQOLMRELDQRTEDKKAIBIDILAAEYI STVKTLS PDQR
 VERLQKIQNAYSCKKEYSDDKVQLAMQTYEMVDKHIRRLDADLARFEADLKDKMEGSD FESSGGRG
 LKKG RGQKEKRGSRGRGRRTSEEDTPKKKKHKGGSEFTDTILSVHPSDVLDMFPVDPNEPTYCLCHQ
 VSYGEMIGCDNPDCPIEFWFHACVDLTTPKPKGW
 >BAIP2
 SQQASVTMHDVDAESFEVLVDYCYTGRVSLSEANVQRLYAASDMLQLEYVREACASFLARRLDLTN
 CTAILKFADAFDHHKLSQAQSYIAHNFKQLSRMGSI REETLADLT LAQLLAVLRDLSLDIESERT
 VCHVAVQWLEAAAKERGPSAAEVFKCVRWMHFTTEEDQDYLEGLLT KPIVKKYCLDVIEGALQMRYG
 DLLYKSLVPVPNSSSSSSSSNSLVSAENPPQRLGMC AKEMVIFFGHPRDPFLCYDPYSGDIYTMP
 SPLTSFAHTKTVTSSAVCVSPDHD IYLA AQPRKDLWVYKPAQNSWQQ LADRLLCREGMDVAYLNGY
 IYILGGRDPITGVKLKEVECYSVQRNQWALVAPVPHSFYSFELIVVQNYLYAVNSKRMLCYDP SHN
 MWLNCASLKRSDFOEACVFENDEIYICIDI PVMKVYNPARGEWRRISNI PLDSETHNYQIVNHDQKL
 LLITSTTPQWKNRVTVYEYDTR EDQWINIGTMLGLLQFDSGFI CLCARVYPSCLEPGQSFI TEED
 DARSESSTEWDL DGFSELDSESGSSSSFSDDDEVWVQVAPQRNAQDQQGS L
 >BAIP3
 GHNAPRKVTAVIYARKG SVLOSIEKISSSV DATTVTSSQQCVFRDQEPKIHNEMASTSDKGAQGRND
 KKDSQGRSNKALHLKSDAEFKKIFGLTKDLRVCLTRI PDHLTSGEGFDSFSSLVKSGTYKETEFMV
 KEGERKQONFDKRRKAKTNKKMDHI KKRKTENAYNAI INGEANVTGSQLLSSILPTSDVSQHNILT
 SHSKTRQEKRTEMEYYTHEKQEKGT LNSNAAYEQSHFFNKNYTEDIFFVTPPELEETIRDEKIRRL
 KQVLRKEEAAL EEMRKKMHQK
 >BARD1
 LAGFESLTCSFPVVS RGLLASRSPRSLSS EGGTMPDNRQPRNRQPRIRSGNEPR SASAMEPDGRGA
 WAHSRAALDRLEKLLRCSRCTN ILREPVC LGCEHIFCSNCVSDCIGTGCPVCYTPAWIQDLKINR
 QLD SMIQ LCSKLRNLLHDNEPSDLKEDKPRKSLFNDAGNKNSI KMWFSPRSKKVRYVVS KASVQT
 QPAIKK DASAQQDSYEFVSPSPPADV SERAKKASARSGKKQKKKTLAEINQKWNLEAEKEDGEFDS
 KEESKQKLVSFCSQPSV ISSPQINGEIDL LAGSLTSESECFGSLTEVSLPLAEQIESPDTKSRNEV
 VTPEKVCKNYLT SKKSLPLENNGKRGHNR LSSPISKRCRTSILSTSGDFVKQTVPS ENIPLP ECS
 SPPSCKRKVGGTSGSKT VTCPMNSLVFHQVHLLH
 >CA150
 QQFIPGPLKILVWPCCLFSQAPTTQDQTPSSAVSVATPTVSVSTPAPTATPVQTVPQPHPQTLPPA
 VPHSVPOPTTAIPAFPPVMVPPFRVPLPGMPI PLPGVLPGMAPP IVMIHPOVAIAAS PATLAGAT
 AVSEWTEYKTADGKTYYYNNRTLESTWEKPQELKEKEKLEEKIKEPIKEPSEEP LPMETEEEDPKE
 EPIKEIKEEPKEEEMTEEEKAAQKAKPVATAPIPGTPWCVVWTGDERVFFYNPTTRLSMWDRPDDL
 IGRADVDKI IQEP PHKKGMEELKLRHPTPTMLSIQKWQFSMSAIKEEQELMBEINEDEPVKAKKR
 K

Figure 6

BEST AVAILABLE COPY

>CGI-125
PDASARNFARVSGLLLCQAGGVLVSSFVMAAAVAMETDDAGNRLRFQLELEFVQCLANPNYLNFLA
QRGYFKDKAFVNYLKYLLYWKDPEYAKYLKYPQCLHMLELLQYEHFRKELVNAQCAKFIDEQQILH
WQHYSRKRMRLOQALAEQQQNNNTSGK

>CGI-74
VEKARAKKREAEVYRNSMPASSFQQQKLRVCEVCSAYLGLHDNDRRLADHGGKLLHGFIEIREK
HEELKRVVAEKQEKRNQERLKRREEREREEREKLRRSRSHSKNPKR

>CLH-17
MAQILPIRFQEHLLQNLGINPANIGFSTLTIMESDKFICIREKVGEQAQVVIIDMNDPSNPIRRPT
SADSAIMNPASKVIALKAGKTLQIFNIEMKSKMKAHTMTDDVTFWKWISLNTVALVTDNAVYHWSM
EGESQPVKMFDRHSSLAGCQIINYRTDAKQKWLTLTGISAQQNRVVGAMQLYSVDRKVSQPIEGHA
ASFAQFKMEGNAESTLFCFAVRGQAGGKLHIIIEVGTPTGNQPFPPKAQVDVFFPPEAQNDFPVAM
QISEKHDVVFLITKYGYIHLDYLET

>CLK1
DAWVLEHLNTTDPNSTFRVQMLEWFEHHGHICIVFELLGLSTYDFIKENGFLPFRLDHIRKMAVQ
ICKSVNFLHSNKLTHTDLPENILFVQSDYTEAYNPKIKRDERTLINPDIKVDFGSATYDDEHHS
TLVSTRHYRAPEVILALGWSQPCDVWSIGCILIEYYLGFVTFPTHDSKEHLAMMERILGPLPKHMI
QKTRKRKYFHHDRLDWDEHSSAGRYVSRCKPLKEFMLSQDVEHERLFDLIQKMLEYDPAKRITLR
EALKHPFFDLLKKS

>DRP-1
KDNFTLIPEGVNGIEERMTTVWVDKAVATGKMDENQFVAVTSTNAAKIFNLYPRKGRIAVGSDADV
IWDPDKLKTITAKSHKSAVEYNI FEGMECHGSPVVISQKIVFEDGNINVNKGMGRFIPRKAPPE
HLYQVRKIRNKVFGLOQVSRGMYDGPVYEV PATPKYATPAPSAKSSPSKHQPPPIRNLHQSNFSL
GAQIDNPNRRTGHRIVAPPGRSNITSLG

>EF1A
MHHEALSEALPGDNVGFNVKNVSVKDVRRGNVAGDSKNPPMEAAGFTAQVILNHPPGQISAGYAP
VLDCHTAHIACKFAELKEKIDRRSGKKLEDGPKFLKSGDAIIVDMVPGKPMCVESFSDXPPLGRFA
VRDMRQTVAVGVIKAVDKKAAGAGKVTKSAQKAQKAK

>EF1G (bait)
AAGTLYTYPENWRAFKALIAAQYSGAQVRVLSAPPHFHFGQTNRTPEFLRKFPAGKVPAFEGDDGF
CVFESNAIAYYVSNEELRGSTPEAAAQVQVVSFADSDIVPPASTWVFPTLGIMHNNKQATENAKE
EVRRIILGLLDAYLKTRTFLVGERVTLADITVCTLLWLKQVLEPSFRQAFPTNTRWFLTCINQPO
FRAVLGEVKLCEKMAQFDACKFAETQPKKOTPRKEKGSREEKQKPOAERKEEKKAAAPAPEEEMDE
CEQALAAEPKAKDPFAHLPKSTFVLDEFKRYKSNEDTSLVALPYFWEHFDKDGWSLWYSEYRFPPE
LTQTFMSCNLITGMFQRLDKLRKNAFASVILFGTNNSSSISGVWVFRGQELAFPLSPDWQVDYESY
TWRKLDPGSEETQTLVREYFSWEGAFQHVKGAFNQGKIFK

>EF1G (prey)
AAGTLYTYPENWRAFKALIAAQYSGAQVRVLSAPPHFHFGQTNRTPEFLRKFPAGKVPAFEGDDGF
CVFESNAIAYYVSNEELRGSTPEAAAQVQVVSFADSDIVPPASTWVFPTLGIMHNNKQATENAKE
EVRRIILGLLDAYLKTRTFLVGERVTLADITVCTLLWLKQVLEPSFRQAFPTNTRWFLTCINQPO
FRAVLGEVKLCEKMAQFDACKFAETQPKKOTPRKEKGSREEKQKPOAERKEEKKAAAPAPEEEMDE
CEQALAAEPKAKDPFAHLPKSTFVLDEFKRYKSNEDTSLVALPYFWEHFDKDGWSLWYSEYRFPPE
LTQTFMSCNLITGMFQRLDKLRKNAFASVILFGTNNSSSISGVWVFRGQELAFPLSPDWQVDYESY
TWRKLDPGSEETQTLVREYFSWEGAFQHVKGAFNQGKIFK

>FEZ1
GNCSDEIHEKEEEEFNEKSENDGNEEPLLTADQVIEEIEEMMONSPDPEEEEEVLEEDGGET
SSQADSVLLQEMQALTQTFNNNWSYEGLRHMSGSELTELLDQVEGAIRDFSEELVQQLARRDELEF
EKEVKNSFTITVLIQVQNKQKEQRELMKKRRKEKGLSLQSSRIEKGNOQMPKRFMSMEGINSILQSGI
RQTFGSSGTDKQYLNTVPIPYEKKASPPSVEDLQMLTNILFAMKEDNEKVPTLLTDYIILKVLCP

Figure 6 (continued)

>G45IP1
MASSGGELGSLFDHHVQRAVCDTRAKYREGRRPRAVKVYTINLESQYLLIQGVPAVGVMKELVERF
ALYGATEQYNALDEYPAEDFTEVYLIKFMNLQSARTAKRKMDEQSFFGGLLHVVCYAPFETVEETR
KKLQMRKAYVVKTTENKDHVYTKKLVTEHKDTEDFRQDFHSEMSGFCKAALNTSAGNSNPYLPYS
CELPLCYFSSKCMCSSGGPVDRAPDSSKDGRNHHKTMGHYNHNSLRKTQINSLKNSVACPGAQKA
ITSSEAVDRFMFRTTLOERKRREDDRKLGTELOTNPTGNEIMIGPLLPLDISKVDMEHDDSLNTTA
NTRHKKEVTSSVFKPPEDKPEDVHTSHPLKORRI
>G45IP2
RTCMPYIFSLSLEALKCFRI RNNEKMLS DSHGVETIRDILPDTS LGGPSFFKIITAKAVLKLQAGN
ABEAAALWRDLVRKVLASYLETAEBAVTLGGSLDENCOEVLKFATRENGFLLQYLVAIPMEKGLDSQ
GCFCAGCSRQIGFSFVRPKLCAFSGLYYCDICHQDDASVIPARI IHNWDLTKRPICRQALKFLTQI
RAQPLINLQMVNASLYEHVERMH LIGRRREQ LKLLGDYLG LCRSGALKELSKRLNHRNYLLES PHR
FSVADLQQIADGVYEGFLKALIEFASQHVYHCDLCTQRGFICQICQHHDIIFPFEFDTTVRCAECK
TVFHQSCQAVVKKGCPRCARRRKYQEONIFA
>G45IP3
FNRGPLSPFNDLRPSHVISLPLHNAPHTRPTNQHTNHI PMARCNTKRHI PRPPHTTCPKRPSIRD
NPIYYLRSFFLRRI FL SLLPLQPSYPPIRRALAPNRHHPAKSPRSPTPKHIRITRIRSIHNLSSP
>GADD45G
GAGAEPEGLECGWSWGA KGVCRWPG LGSFPRFPAGSRSLRWLLRRMQGAGKALHELLLSAQRQGCLT
AGVYESAKVLNVDPDNVTF CVLAAGEEDEGDIALQIHFTLIQAFCCENDIDIVRVGDVQRLAAIVG
AGEEAGAPGDLHCILISNP NEDAWKDPAL EKLSLFCEESRSVNDWVPSITLPE
>GIT1
PQMA DRSRQKCMSQSLDLSELAKAAKKKLQALS NRLFEE LAMDVYDEVDRREND AVWLATQNHSTL
VTERS AVPFLPVNPEYSATRNQGRQKLARFNAREFATLI IDILSEAKRRQGGKSLSSPTDNL ELSL
RSQSDLD DQHDYDSVASDEDDTQDEPLRSTGATRSNRARSMDS SDLS DGAVTLQEYLELKKALATSE
AKVQQLMKVNSSLSD ELRLQREIHKLQAENLQLRQPPGPVPTPPLP SERAEHTPMAPGGSTHRRD
RQAFSMYEPGSALKPFGPPGDEL TTRLQPFHSTEE DDAIYSVHV PAGLYRIRKGVSA SAVPFTP
SPLLSCSQEGSRHTSKLSRHGSGADSDYENTQSGDPLLGLEGKRFLELGKEEDFHFELES LDGDL
DPGLPSTEDVILKTEQVTKNI QELLRAAQEFKHDSFVPCSEKIHLAVTEMASLFPKRPAL EPVRS
LRLNASAYRLQSECRKTVPPEPGAPVDFQLLTQQVIQCA YDIAKAAKQLVTIT TREKKQ
>hADA3
KQVDALLKKSEA QHEQPEDGCPFGALTQRLLQALVEENI ISPMEDSPIPDMSGKESGADGAS TSPR
NQNKPF SVPHTKSLESRIKEELIAQGLLESEDRPAEDSEDEVLAELRKRQAELKALSAHNRTKKHD
LLRLAKEEVSRQELRQRVRMADNEVMDAFRKIMAA RQKKRTPTKKEKDQAWKTLKERESILKLLDG
>HBO1
DAERQEALGI VRRIGTDTEAATEPAGATV PAAAAAARI GTVGPQPPAMP RRKRKNAGSSSDGTEDSD
FSTDL EHTDSSES DGTSRR SARVTRSSARLSQSSQDSSPVRNLQSF GTEEPAYSTRRVTRSQQQPT
PVT PKKYPLRQTRSSGSETEQVVD FSDRET KNTADHDESPRTPTGNAPSSES DIDISSPNVSHDE
STAKDMSLKDSGSDLSHRPKRRRFHESYNFMKCP TPGCNSLGHLTGKHERHFSISGCP LYHNLSA
DECKVRAQSRDKQIEERMLSHRQDDNNRHATR HQAPTERQLRYKEKVAELRKRNSGLSKEQKEY
MEHRQTYGNTREPLLENLTSEYDLDFRRAQARASEDLEKLRLQGQITEGSMIKTIAFGRYELDT
WYHSPYPEEYARLGRLYMCEFC LKYMKSQTI LRRHMAKCVWKHPGDEIYRKGSISVFEVDGKKNK
IYQNLCLLAKLFLDHKTLTYDVEPFLFYVMTEADNTGCHLIGYFSKEKNSFLNYNVSCILT MPQY
MRQGYGKMLIDFSYLLSKVEEKVGS PERPLSDGLISYRSYWKVLLRYLHNFQGKEISIKEISQE
TAVNPDIVSTLQALQMLKYWKGKHLVLKRODLIDEWIAKEAKRSNSNKTMDPSCLKWTPPKGT

Figure 6 (continued)

>HD1.7
 MATLEKLMKAFESLKSFQQQQQQQQQQQQQQQQQQQQQQQQPPPPPPPPPPPPQLPQPPPPQAQPLLPQ
 PQPPPPPPPPPPPGPAVAEEPLHRPKKELSATKKDRVNHCLTICENIVAQSVRNSPEFQKLLGIAME
 LFLLCSDDAESDVRMVADECLNKVIKALMDSNLPRLQLELYKEIKKNGAPRSLRAALWRFELLAHL
 VRPQKCRPYLVNLLPCLTRTSKRPEESVQETLAAAVPKIMASFGNFANDNEIKVLLKAFIANLKSS
SPTIRRTAAGSAVSICQHSRRTQYFYSWLLNVLLGLLVPVEDEHSTLLILGVLLTLRYLVRLLOQQ
VKDTSLKGSFGVTRKEMEVSFSAEQLVQVYELTLHHTQHODHNVVTGALELLQQLFRTPPPELLQT
 LTAVGGIGQLTAAKHEESGGRSRSGSIVELIAGGSSCSFVLSRKQKQKGVLLGEEEALEDDESRSD
 VSSSALTASVKDEISGELAASSGVSTPGSAGHDITEQPRSQHTAGGLSGSGQL
 >HDd1.0
 MATLEKLMKAFESLKSFQQQQQQQQQQQQQQQQQQQQQQQQPPPPPPPPPPPPQLPQPPPPQAQPLLPQ
 PQPPPPPPPPPPPGPAVAEEPLHRPKKELSATKKDRVNHCLTICENIVAQSVRNSPEFQKLLGIAME
 LFLLCSDDAESDVRMVADECLNKVIKALMDSNLPRLQLELYKEIKKNGAPRSLRAALWRFELLAHL
 VRPQKCRPYLVNLLPCLTRTSKRPEESVQETLAAAVPKIMASFGNFANDNEIKVLLKAFIANLKSS
 SPTIRRTAAGSAVSICQHSRRTQYFYSWLLNVLLGLLVPVEDEHSTLLILGVLLTLR
 >HDd1.3
 PRLQLELYKEIKKNGAPRSLRAALWRFELLAHLVRPQKCRPYLVNLLPCLTRTSKRPEESVQETLA
 AAVPKIMASFGNFANDNEIKVLLKAFIANLKSSSPTIRRTAAGSAVSICQHSRRTQYFYSWLLNVLL
 LGLLVPEDEHSTLLILGVLLTLRYLVPLLOQQVKDTSLKGSFGVTRKEMEVSFSAEQLVQVYELT
 LHHTQHODHNVVTGALELLQQLFRTPPPELLQTTLAVGGIGQLTAAKHEESGGRSRSGSIVELIAGG
 GSSCSFVLSRKQKQKGVLLGEEEALEDDESRSDVSSSALTASVKDEISGELAASSGVSTPGSAGHD
 IITEQPRSQHTAGGLSGSGQL
 >HdexQ20
 MATLEKMMKAFESLKSFQQQQQQQQQQQQQQQQQQQQQQQQPPPPPPPPPPPPQLPQPPPPQAQPLLPQ
 QPPPPPPPPPPPGPAVAEEPLHRP
 >HdexQ51
 MATLEKLMKAFESLKSFQQ
 QPPPPPPPPPPPPQLPQPPPPQAQPLLPQPPPPPPPPPPPPPGPAVLRSRCTDREST
 >HIP1
 ADTLQGHDRDRFMEQFTKLKDLFYRSSNLQYFKRLIQIPQLPENPPNFLRASALSEHISPVVVIPIAE
 ASSPDSEPVLEKDDLDMDASQONLFDNKFFDDIFGSSFSDDPFNFNSQNGVNKDEKDHILIERLYRE
 ISGLKAQLENMKTESQRVVLQLKGVHSELEADLAEQOHLRQQAADDCEFLRAELDELRRQREDTEK
 AQRSLSEIERKAQANEQRYSKLKEKYSSELVONHADLLRKNAEVTKQVSMARQAQVDLEREKKELED
 SLERI SDQGQRKTQEQLELVLES LKQELATSQRELQVLQGSLETS AQSEANWAAEF AELEKERDSL
 SGAHREEL SALRKELODTQLKLASTEESMCQAKDQKMLLVGSRKAAEQVIQDASTRP
 >HIP11
 VDLVTACDIRYCAQDAFFQVKEVDVGLAADVGTQLRLPKVIGNQSLVNELAF TARKMMADEALGSG
 LVSRVFPDKEVMLDAALALAAEISSKSPVAVQSTKVNLLYSRDHSVAESLNYVASWNMSMLQTQDL
 VKSVQATTENKELKTVTFSKL
 >HIP13
 PCCSEDTIPSQVSDYDYFSVSGDQEQEFDKSSSTIPRNSDISQSYRRMFQAKRPASTAGLPTTL
 GPAMVTPGVATIRRTPTSTKPSVRRGTIGAGPIPIKTPVIVPKTPTVPDLPGVLPAPPDGPEERGEH
 SPESPSVGEQPQGVTSMPSSMWGQASVNPPLPGPKPSIPEHRQAIPESEAEDQEREPPSATVSP
 GQIPESDPADLSPRDTPOGEDMLNAIRRGVKKLKTITNDRSAPRPS
 >HIP15
 IHMAPFPYNLMIETFCQVCEETLAHSVDSLEQLTGIRMLRHLTMTIDYHTLIANYMSGFLSLLT
 TANARTKFHVLKMLLNLSNPVAKKLFSAKALSIFVGLFNIETNDNIQIVIKMFQONISNIKSG
 KMSLIDDDFSLEPLISAFREFEELAKQLQAQIDNQNDEPVGQOS

Figure 6 (continued)

>HIP16
 DEEBRNHRQMIKEAFAGDDVIRDFLKEKREAVEASKPKDVDLTLPGWGEWGGVGLKPSAKKRRRFL
 IKAPEGPPRKDKNLPNVIINEKRNIAAAHQVRVLPYPFTHHWQFERTIQTPIGSTWNTQRAFQKL
 TTPKVVTKPGHIINPIKAEDVGYRSSSRSDLSVIQRNPKRITTRHKQKQKKCSVD

>HIP2
 MANIAVQRIKREFKEVLKSEETSKNQIKVDLVDFTELGEIAGPPDTPYEGGRYOLEIKIPETY
~~PEPEKVPSTTKWHPNFSVTGATCLDITLKDQWAAAMTLRTVLLSLQALLAAABPDDPQDAVVAN~~
 QYKQNPMEFKQTARLWAHVYAGAPVSSPEYTKKIENLCAMGFDRNAVIVALSSKSWDVETATELLL
 SNX

>HIP5 (bait)
 FLKSILKESKYEHGYLKALIINQSFKFGNQKAAAIRDSIELTKEKGAEIPKTIKKLRWFDETSNI
 ENNAENSHSLKNKTGTTQQHSQQPHIQSGAGSNIIISVSTCAVNSADTKKSREDSISENVTTLGSG
 ADHMPNCFIPSGYNFAKHAWPASKKEESKIPVHDDSKTKQKQGRRAKIIKPGSAKVQSGFIC
 TNRKGAVIQPQSASKVNIPTQAQGLIIPCPPPQSTSNIRSGKNIQVSQCQPVTPENPQNIITHNS
 FNSKHVLPTEHSLNQWNQESSPLSNACSDLVTVIPSLPSYCSSECQTFKINHSNGTQAVARQDA
 TLYCTQRSVPCEESYPSVTLRTAEESVPLWKRGPVNLHQNKRATGSTVMRRKRIAETKRNILEQ
 KRQNPQSVGQKYSEQINNFGQSVLLSSSEPKQTTGTSTYIEEVSDDSTSEFLMAENLVKASVPDEI
 LTVLNSKQIQKSNLPLNKTQQFNICTLSAEEQKILESINDLNERLHYIQESICKNPSIKNTLQIIP
 LLEKREDRTSSCRDKR

>HIP5 (prey)
 FLKSILKESKYEHGYLKALIINQSFKFGNQKAAAIRDSIELTKEKGAEIPKTIKKLRWFDETSNI
 ENNAENSHSLKNKTGTTQQHSQQPHIQSGAGSNIIISVSTCAVNSADTKKSREDSISENVTTLGSG
 ADHMPNCFIPSGYNFAKHAWPASKKEESKIPVHDDSKTKQKQGRRAKIIKPGSAKVQSGFIC
 TNRKGAVIQPQSASKVNIPTQAQGLIIPCPPPQSTSNIRSGKNIQVSQCQPVTPENPQNIITHNS
 FNSKHVLPTEHSLNQWNQESSPLSNACSDLVTVIPSLPSYCSSECQTFKINHSNGTQAVARQDA
 TLYCTQRSVPCEESYPSVTLRTAEESVPLWKRGPVNLHQNKRATGSTVMRRKRIAETKRNILEQ
 KRQNPQSVGQKYSEQINNFGQSVLLSSSEPKQTTGTSTYIEEVSDDSTSEFLMAENLVKASVPDEI
 LTVLNSKQIQKSNLPLNKTQQFNICTLSAEEQKILESINDLNERLHYIQESICKNPSIKNTLQIIP
 LLEKREDRTSSCRDKR

>HMP
 QBQVKIESLAKSLEDALRQTASVTLOAIAAQNAAVQAVNAHSNIIKAAMDNSEIAGEKKSQAQWRTV
 EGALKERRKAVDEAADAALLKAKEELEKMKSVIENAKKKEVAGAKPHITAAEGKLHNMIVDLNVDK
 KVQAAQSEAKVVSQYHELVVQARDDFKRELDSTPEVLPGWKMSVSDLDLADKLSTDDLNSLIAHAH
 RRIDQLNRELAEQKATEKQHITLALAEKQKLEEKRAFDASAVAKALEHHRSEIQAEQDRKIEEVRDAM
 ENEMRTQLRRQAAAHDTDLRDVLRVQEQELKSEFEQNLSEKLSEQELQFRRLSQEQVDNFTLDINT
 AYARLRGIEQAVQSHAVAEHEARKAHQLWLSVEALKYSMTSSAETPTIPLGSAVEAIKANCSDNE
 FTQALTAAPPESLTRGVYSEETLRARFYAVQKLARRVAMIDETRNSLYQYFLSYLQSLLLFPQO
 LKPPPELCPEDINTFKLLSYASYCIEHGDLELAAKFVNQLKGESRRVAQDWLKEARMITLETQIVE
 ILTAYASAVGIGTTQVQPE

>HP28
 PPADSLKDYDTFVLVSRNTEKRSPPKARLLKVSPQQPGPSGAPQPPKTKLPSTPCVPDPPTKQAEI
 LNAIILPPREWEDTQLWIIQVSSSTPSTRMDVVHLQEQLDLKLQQRQARETGICPVRRELYSQCFDE
 LIREVTINCAERGLLLLRVRDEIRMTIAAYQTLYESVAFGMRKALQAEQKSDMERKIAELETEK
 RDLERQVNEQAKCEATEKRESERRQVEEKKHNEEIQFLKRTNQQLKAQLEGI IAPKK

>HSPC232
 RRRADGCIYGVSRARRVAYRRDEMWSSEGRYERYIPREAPPRSHPSDESGYRWTRDDHSASRQ
 EYRDMRDGFRKRSFYSSHYARERSPYKRDNTFFRESPVGRKDSPHSRSGSSVSSRSYSPERSKSYS
 FHQSQRNKRERPVQSLKTSRDTSPSSGSAVSSSKVLDKPSRLTEKELAAASKWAAEKLKSDSN
 LPEISEYEAGSTAPLFTDQPEEPESNTTHGIELFEDSQLTTRSKAIAASKTEIEQVYRQDCETFGM
 VVKMLIEKDPSEKSIQFALRQNLHEIGERCVEELKHFIAYDYDTSTQDFGEFF

Figure 6 (continued)

>HYPA
 GRRRSSLSPTMRPGTGAERGGLMMGHPGMHYAPMGHMPMGQRANMPFVPHGMMPQMMPPMGGPPMG
 QMPGMMSSVMPGMMMSHMSQASMQPALPPGVNSMDVAAGTASGAKSMWTEHKS PDGRTYYNTETK
 QSTWEKPDLDLKTAEQLLSKCPWKEYKSDSGKPYYSNTKESRWAKPKELEDLEGYQNTIVAGSL
 ITKSNLHAMIKAESSKQEECTTTSTAPVPTTEIPTTMSTMAAAEAAA AVVAAAAAAAAAAAAANA
 NASTSASNTVSGTVPVVPPEVTSIVATVDNENTVTLSTEEQAQLTSTPAIQDOSVSVSSNTEGEE
 TSKQETVADFTPKKEEEESQPAKKTWTWNTKEEAKQAFKELLKEKRVPSNASWEQAMKMIINDPRY
 SALAKLSEKKQAFNAYKVQAKKKEKKKKKKK
 >HZPH
 HARFAEAECLAESHQHL SKESLAGNKPANAVLHKVLNQLEELLSDMKADVTRLPATLSRIPPIAAR
 LQMSERSILSRLASKGTEPHPTPAYPPGPYATPPGYGAAFSAAPVGALAAAGANYSQMPAGSFITA
 ATNGPPVLVKKEKEMVGALVSDGLDRKEPRAGEVICIDD
 >IKAP
 LKEGSPLEDLALLEALSEVVQNTENLKDEVYHILKVLFLFEFDEQGRELQKAFEDTLQLMERSLPE
 IWTLTYYQONSATPVLGPNSTANSIMASYQQQKTSVPVLD AELFIPPKINRRTQWKLSLLD
 >IMPD2
 DFLILPGYIDFTADQVDLTSALTKKITLKTPLVSSPMDTVTEAGMAIAMALTGGIGFIHNCCTPEF
 QANEVRKVKKYEQGFITDPVVLSPKDRVRDVFEAKARHGFCGIPITDTGRMGSRVLGIISSRDIDF
 LKEEEHDCFLBIMTKREDLVVAPAGITLKEANEILQSRKKGKLPVNNEDDELVAI IARTDLKKNR
 DYPLASKDAKKQQLLCGAAIGTHEDDKYRLDLLAQAGVDVVLDSSQGNISIFQINMIKYIKDKYPNL
 QVIGGNVVTAAQAKNLIDAGVDALRVGMGSGSICITQEV LACGRPOATAVYKVSEYARRFGVPVIA
 DGGIQNVGHIAKALALGASTVMGSLLAATTEAPGEYFFSDGIRLKKYRGMGSLDAMDKHLSSQNR
 YFSEADKIKVAQGVSGAVQDKGSIHKFVPYLIAGIQHSCQDIGAKSLTQVRAMMYSSELKFEKRTS
 SAQVEGGVHSLHSYEKRLF
 >KPNA2
 AWALTNIASGTSEQTKAVVDGGAIPAFISLLASPHAHISEQAVWALGNIAGDGSVFRDLVIKYGAV
 DPLLALLAVPDMSSLACGYLRNLTWTL SNLCRNKNPAPPIDAVEQILPTLVRLHDDPEVLADTC
 WAISYLTGDPNERIGMVVKIGVVPQLVKLLGASELPVTPALRAIGNIVTGTDEQTQVVIDAGALA
 VFPSLLTNPKTNIQKEATWTMSNITAGRQDQIQQVNVHGLVPFLVSVLSKADFKTQKEAVWAVTNY
 TSGGTVEQIVYL VHCGIIEPLMNL LTAKDTKIILVILDAISNIFQAAEKLGETEKL SIMIEECGGL
 DKIEALQNHENESVYKASLSLIEKYFSVEEEDQNVVPETTSEGYTFQVQDGA PGTFNF
 >KPNB1
 LAAVGLVGDLCRALQSNII PFCDEVMLLLENLGNENVHRSVKPQILSVFGDIALAIGGEFKKYLE
 VVLNTLQQASQAQVDKSDYDMVDYLNELRESCLEAYTGIVQGLKGDQENVHPDVMLVQPRVEFILLS
 FIDHIA GDEDHTDGVVACAAGLIGDLCTAFGKDV LKLV EARP MIHELLTEGRRSKTNKAKTLATWA
 TKELRKLKNQA
 >Ku70
 KTRTFNTSTGGLLLPSDTKRSQIYGSRQIILEKEETEELKRFD DPGLMLMGFKPLVLLKHHYLRP
 SLFVYPEESLVIGSSTLFSALLIKCLEKEVAALCRYTPRRNI PPYFVALVPQEEELDDQKIQVTPP
 GFQLVFLPFADDKRKMPFTEKIMATPEQVGKMKAI VEKLRFTYRSDSFENPVLQOHFRNLEALALD
 LMEPEQAVDLTLPKVEAMNKR LGS LVD EFKELVYPPDYNPEGKVTKRKHDNEGSGSKRPKVEYSEE
 ELKTHISKGT LGKFTV PMLKEACRAYGLKSG LKKQELLEALTKHFQD
 >LUC7B1
 VDAVAVDAAAVSAKAEKVHELNEKIGKLLAKAEQLGAEGNVDESQKILMEVEKVRAKKKEAEEFYR
 NSMPASSFQQQKL RVCEVCSAYLGLHDNDRRLADHFGGKLHLGFIQIREKLDQLRKTVAEKQEKRN
 QDRLRRREEREREERLSRRSGSRTRDRRRRSRSDRRRRRSRSTSRERRKLSRSRSRDRHRRHRSRS
 RSHSRGHRRASRDRSAKYKFSRERASREESWESGRSERGPPDWRLESSNGKMASRRSEEKEAGEI

Figure 6 (continued)

>MAGEH1
ASFPRTAVSFEPLAGDMFPRGRKSRRRRNARAAEENRNNRKIQASEASETPMAASVVASTPEDDLG
PEEDPSTPEEASTTPEEASSTAQAQKPSVPRSNFQGTKKSLMSILALIFIMGNSAKEALVWKVLG
KLGMPQGRQHSIFGDPKKIVTEEFVRRGYLIYKPVPRSSPVEYEFFWGPRAHVESKLVKMHFVAR
VRNRCCKDWPCNYDWDSDDDAEVEAILNSGARGYSAP
>MAP11c3
~~QERSFADRCKEVQGTIRDOEPFKIPVITERYKGEKQLPVLDKTKFLVPDHNMSSELVKIIIRRLQLN~~
PTQAFLLVNQHSMSVSVSTPIADIYEQEKEDGFLYMYASQETFGF
>mHAP1
PKEQVQSGAGDGTGSGDPAAGTPTTQPAVGPAPEPSAEPKPAQAQGTGSGQKSGSRTKTGSGFCRSM
IIGDSAPWTRYVFGPGYPRATGLGTGAEGIWKTPAAYIGRRPGVSGPERAAFIRELQOEALCPN
PPPTKKITEDDVKVMVLYLLEEKERDLNTAARIGQSLVKQNSVLMENNLETMLGSAREEILHLRK
QVNLRDDLLQLYSDSDDDDEDEDEDEEGEEEEEEREGQRDQDQDHDHPYGAPKPHPKAETAHRCQP
LETLOQKLRLLEENDHLREEASHLDNLEDEEQMLILECQEVEQFSEASQMAELSEVLVLRLEGYER
QQKEITQLQAEITKLQORCQSYGAQTEKLQOMLASEKGIHSESLRAGSYMODYGSRPRDRQEDGKS
HRQRSSMPAGSVTHYGYSVPLDALPSFPETLAEELRTSLRKFITDPAYFMERRDTHCREGRKKEQR
AMPPPPAX
>mp53
VTETPGPVAPAPATPWPLSSSFVPSQKTYQGNYGFLGLQSGTAKSVMTYSPPLNKLFCQLAKTC
FVQLWVSATPPAGSRVRAMAIYKKSQHMTEVVRRCPPHERCSDGDGLAPPQHLIRVEGNLYPEYLE
DRQTFRHSVVVPYEPPEAGSEYTTIHYKMCNSSCMGGMNRRPILTIITLEDSSGNLLGRDSFEVR
VCACPGDRDRTEENFRKKEVLCPELPPGSAKRALPTCTASPPQKKPLDGEYFTLKIIRGRKRFE
MFRELNEALELKDAHATEESGDSRAHSSYLKTKKGQSTSRHKKTMVKVGPDS
>NAG4
RDRVENEAEKDLQCHAPVRLDLPPEKPLTSSSLAKQEEVEQTPLQOEALNQLMRQLQKDPSSAFFSFP
VTDFAIPGYSMIIKHPMDFSTMKEKIKNNDYQSIEELKDNFKLMCTNAMIYKPKETIYYKAACKLL
HSGMKILSQERIQSLKQSIDFMADLQKTRKQKDGTDTSQSGEDGGCWQREREDSGDAEAHAFKSPS
KENKKKDQKMLEDKFKSNLREQEQLDRIVKESGGKLTURLVNSQCEFERRKPDGTTTLGLLHPV
DPIVGEPGYCPVRLGMLTGRLOSGVNTLQGFEDKRNKVTPVLYLNYGYPSSYAPHYDSTFANISK
DSDLIYSTYGEDSDLPDSDFSIHEFLATCQDYPYVMADSLLDVLTGKGHSRTLQEMEMSLPEDEGH
TRTLDTAKEMEITEVEPPGRIDSSTQDRILAKAVTNFGVPVEVFDSEEAEIFQKKLDETTRLLE
LQEAQNERLSTRPPPMICLLGPSYREMHLEQVTTNNLKELAQQVTFGDIVSTYGVKAMGISIPS
PVMENNFDLTEDTEEPKKTDAECGPGGS
>NEFL
LSPLSSLSGLPPPPRAGEPPAATMSSFSYEPYYSTSYKRRYVETPRVHISSVRSGYSTARSAYSSY
SAPVSSSSLSVRRSYSSSSGSLMPSLENLDLSQVAASNDLKSIRTQEKALQDLNDRFASFIERVH
ELEQONKVLAEELIVLRQKHSEPSRFRALYEQEIRDLRLAAEDATNEKQALQGEREGLEETLRNLQ
ARYEEEVLSREDAEGRLEMEARKGADEAALARAEELEKRIDSLMDEISFLKKVHEEEIAELQAQIQYA
QISVEMDVTKPDLAALKDIRAQYEKLAAKNMQNAEEWFKSRFTVLTESAANKNTDAVRAAKDEVSE
SRLLKAKTLEIEACRGMNEALEKQLQELEDKQNAISAMQDTINKLENELRTTKSEMARYLKEYQ
DLNVMKALDIEIAAYRKLLGEETRLSFTSVGSITSGYSQSSQVFGRSAYGGLQTSYLMSTRSF
PSYYTSHVQEEQIEVEETIEAAKABEAKDEPPSEGEAEKEEKDKEEAEEEEAAEEEEAAKEESEEA
KEEEEGGEGEGEETKEAEEEEKKVEGAGEEQAAKKK
>p53
MEEPQSDPSVEPPLSQETFSDLWKLLENVLSPLPSQAMDDLMLSPDDIEQWFTEDPGPDEAPRM
PEAAPPVAPAPAAPTPAAPAPAPSWPLSSSVPSQKTYQGSYGFRLLGFLHSGTAKSVTCTYSPALNK
MFCQLAKTCFVQLWVDSTPPPQTRVRAMAIYKKSQHMTEVVRRCPPHERCSDSDGLAPPQHLIRVE
GNLRVEYLLDRNTFRHSVVVPYEPPEVGSDCCTIHYNYMCNSSCMGGMNRRPILTIITLEDSSGNL
LGRNSFEVRVCACPGDRDRTEENLRKKGEPHHELPPGSTKRALPNNTSSSPQPKKKPLDGEYFTL
QIRGRERFEMFRELENEALELKDAQAGKEPGGSRAHSHLKSCKKGQSTSRHKKLMFKTEGPDS

Figure 6 (continued)

>PFN2
 APRRPRCSAKGSKMAGWQSYVDNLMCDGCCQEAIVGYCDAKYVWAATAGGVFQSITPIEIDMIVG
 KDREGFFTNGTLTGAKKCSVIRDSLYVDGDCMTDIRTKSQGGEPTYNVAVGRAGRVLVFMVMSKEGV
 HGGGLNKKAYSMAYLRDSGF

>PIAsy (bait)
 LVEAKNMVMSFRVSDLOMLLGFVGRSKSGLKHELVTALQVQFDCSPFLFKKIKELYETRYAKKN
 SEPAPQPHRPLDPLTMHSTYDRAGAVPRTPLAGPNIDYPVLYGKYLNGLGRLPAKTLKPEVRLVKL
 PFFNMLDELLKPTLVPQNNKQLQESPCIFALTTPRQVELIRNSRELQPGVKAVQVVLRIQYSDTSC
 PQEDQYPPNIAVKVNHSYCSVPGYYPSPNKPGEVPEKRPCRPINLTHLMYLSSATNRITVTWGNYGKS
 YSVALYLVRQLTSSELLQRLKTIGVKHPELCKALVKEKRLRDPDSEIATTGVRVSLICPLVKMRLS
 VPCRAETCAHLQCFDAVFYLMNEKKPTWMCVPCKPAPYDQLIIDGLLSKILSECEDADEIEYLV
 DGSWCPIRAEKERSCSPOGAILVLGSPDANGLLPAPSVNGSGALGSTGGGGPVGSMENCKPGADV
 DLTLDSSESEDEEEDEDEEGPRPKRRCPPQKGLVPAC

>PIAsy (prey)
 LVEAKNMVMSFRVSDLOMLLGFVGRSKSGLKHELVTALQVQFDCSPFLFKKIKELYETRYAKKN
 SEPAPQPHRPLDPLTMHSTYDRAGAVPRTPLAGPNIDYPVLYGKYLNGLGRLPAKTLKPEVRLVKL
 PFFNMLDELLKPTLVPQNNKQLQESPCIFALTTPRQVELIRNSRELQPGVKAVQVVLRIQYSDTSC
 PQEDQYPPNIAVKVNHSYCSVPGYYPSPNKPGEVPEKRPCRPINLTHLMYLSSATNRITVTWGNYGKS
 YSVALYLVRQLTSSELLQRLKTIGVKHPELCKALVKEKRLRDPDSEIATTGVRVSLICPLVKMRLS
 VPCRAETCAHLQCFDAVFYLMNEKKPTWMCVPCKPAPYDQLIIDGLLSKILSECEDADEIEYLV
 DGSWCPIRAEKERSCSPOGAILVLGSPDANGLLPAPSVNGSGALGSTGGGGPVGSMENCKPGADV
 DLTLDSSESEDEEEDEDEEGPRPKRRCPPQKGLVPAC

>PLIP
 GEIIEGCRLPVLRRNQDNEDEWPLAEILSVKDISGRKLFYVHYIDFNKRLDEWVTHERLDLKKIQF
 PKBEAKTPTKNGLPGRPGSPEREVKRKVEVVPATFPVSETAPASVFPQNGAARRAVAAQPGKRK
 KSNCLGTDSDSDGIPSAPRMTGSLVSDRSHDDIVTRMKNIECIELGRHRLKPYFSPYQBEL
 TTLPLVLYLCEFLKYGRSLKCLQRHLTKCDLRHPPGNEIYRKGTISFFEIDGRKNKSYSONLCLLA
 KCFLDHKTLYYDTPFLFYVMTEYDCKGFHIVGYFSKEKESTEDYNVACILTLPPYQRRGYKLLI
 EFSYELSKVEGKTGTPEKPLSDLGSLSYRSYWSQTILEILMGLKSESGERPQITINEISEITSIKK
 EDVISTLQYLNILINYYKGQYILTLSEDIVDGERAMLKRLLRIDSKCLHFTPKDWSKRGKW

>PTN
 LSQRQDQVPRLPVQKSRQESPRAEENPKWREGKKETSESSVQKAGRAAAAQAGAAASRVPLSGSN
 LAPCNKGRLSAREDVSNKMQAQQYQQORRKFAAFLAFIFILAAVDTAEAGKKEKPEKKVKKSDC
 GEWQWSVCVPTSGDCGLGTREGTRTGABCKQTMKTQRCIKPCNWKQFGAECKYQFQAWGECDLNT
 ALKTRTGSLLKRALHNAECQKTVTISKPCGKLTKPKPQAESKKKKKEGKKQEKMLD

>PTPK
 SNYINAALMDSYRQPAAFIVTQYPLPNTVKDFWRLVYDYGCTSIIVMLNEVDLSQGCPQYWPEEGML
 RYGPQVECMSCSMDCDVINRIFRICNLTRPQEGYLMVQQFQYLGWASHREVPGSKRSFLKLIQV
 EKWQEECEEGERTIHCLNGGGRSGMFCAGIVVEMVKRQNVVDVFHAVKTLRNSKPNMVEAPEQ
 YRFCYDVALEYLESS

>SETBD1
 KASTSGLGIKDEGDIKQAKKEDTDDRNMSSVVTESRNYGYNPSPVKPEGLRRPPSKTSMHQSRRL
 MASAQSNPDDVLTLSSTESGESGTSRKPTAGQTSATAVDSDDIQTISGSEGGDDFEDKKNMTGP
 MKRQVAVKSTRGFALKSTHGIAIKSTNMAVSKGESAPVRKNTRQFYDGEESCYIIDAKLEGNLGR
 YLNHSCSPNLFVQNVFVDTHDLRFPWVAFFASKRIRAGTELTDWYNYEVGSVEGKELLCCCGAIEC
 RGRLI

Figure 6 (continued)

>SH3 GL3
VAGLKKQFHKASQLFSEKISGAEGTKLDDEFLDMERKIDVTNKVVAHILSKTTEYLQPNPAYRAKL
GMLNTVSKIRGQVKITGYPQTEGLLGDCMLKYGKELGEDSTFGNALIEVGESMKLMAEVKDSLDIN
VKQTFIDFLQLLQDKDLKEIGHHLKKLEGRRLDYDYKKKRVGKI PDEEVRQAVEKFEESEKELAERS
MFNFLENDVEQVSQALAVFIEAALDYHROSTEILOELQSKLOMRI SAASSVPRREYKPRFVKRSSSE
~~LNCVSTTSVAVKTTGQNI PMDQRCRGLYDDEPENNQCHLCKEEDTETENNQDENWYEMHCESS~~
FFPINYVEVIVPLPQ
>SUMO-2
RPRAQLRRESGGAESVTRPLRAASPAFPRAARAAMSEEKPKEGVKTEENDHINLKVAGQDGSVVQF
KIKRHTPLSKLMKAYCERQGLSMRQIRFRFDGQPINETDTPAQLEMEDEDTIDVFQQQTGGVPSS
LAGHSF
>SUMO-3
PSSTAAASFRCRWCCLCARLVRTWYLFCEAAAETPALAMADEKPKEGVKTENNDHINLKVAGQD
GSVVQFKIKRHTPLSKLMKAYCERQGLSMRQIRFRFDGQPINETDTPAQLEMEDEDTIDVFQQQTG
GVY
>TAL1
SSPVKQRMESALDQLKQFTTVVADTGDFHAIDEYKPDATTNPSLILAAAQMPAYQELVEEAIAAY
GRKLGGSQEDQIKNAIDKLFVLFGAEILKKIPGRVSTEV DARLSFDKDAMVARARRLIELYKEAGI
SKDRILIKLSSTWEGIQAGKELEEQHGIHCNMTLLFSFAQAVACAEGVTLS PFVGRILDWHVAN
TDDKSYEPLEDPGVKSVTKIYNYKKFSYKTI VMGASFRNTGEIKALAGCDFLTISP KLLGELLQD
NAKLVPVLSAKAAQASDLEKIHLEKSFRWLHNEDQMAVEKLSDGIRKFAADAVKLERMLTERMFN
AENGK
>TCPC
QTDIEITREEDFTRILQMEBEYIQQLCEDIIQLKPDVVITEKGISDLAQHYLMRANITAIRRVKRT
DNNRIARACGARI VSRPEBLREDDVGTGAGLLEIKKIGDEYFTFITDCKDPKACTILLRGASKEIL
SEVERNLODAMQVCRNVLLDPQLVPGGGASEMAVAHALTEKSKAMTGVEQWFPYRAVAQALEVIPRT
LIQNCGASTIRLLTSLRAKHTQENCETWGVNGETGTGLVDMKELGIWEPLAVKLQTYKTAVETAVLL
LRIDDIVSGHKKKGDDQSRQGGAPDAGQE
>VIM
SPRQRRSRAPTTHTRALVRLFSQSQSA PPPPPRPSPPSAAMSTRSVSSSSYRRMFGGPGTASRPS
SSRSYVTTSTRTYSLSALRPSSTSRSLYASSPGGVYATRSSAVRLRSSVPGVRLQDSVDFSLADA
INTEFKNTRINEKVELQELNDRFANYIDKVRFLQONKILLAELEQLKGQKSR LGDLYEEMREL
RRQVDQLTNDKARVEVERDNLAEDIMRLREKLQEEMLOREEAENTLOSFRQDVNDASLARLDLERK
VESLQEEIAFLKKLHEEEIQELOAQIQEQHVQIDVDVSKPDLTAALRDVRQOYESVAAKNLQRAEE
WYKSKFADLSEAANRNNDALRQAKQESTEYRRQVQSLTCEVDALKGTNESLERQMRMEENFAVEA
ANYQDTIGRLQDEIQNMKEEMARHLREYQDLLNVKMALDIEIATYRKLLGEESRISLPLPNFSSL
NLRETNLDSLPLVDTHSKRTLLIKTVETRDGQVINETSQHDDLE
>VIMc
QEEMLOREEAENTLOSFRQDVNDASLARLDLERKVESLQEEIAFLKKLHEEEIQELOAQIQEQHVQ
IDVDVSKPDLTAALRDVRQOYESVAAKNLQRAEEWYKSKFADLSEAANRNNDALRQAKQESTEYRR
QVQSLTCEVDALKGTNESLERQMRMEENFAVEAANYQDTIGRLQDEIQNMKEEMARHLREYQDLL
NVKMALDIEIATYRKLLGEESRISLPLPNFSSLNLRETNLDSLPLVDTHSKRTLLIKTVETRDGQ
VINETSQHDDLE

Figure 6 (continued)

>ZHX1

EQTINDLTFDGSFVKEENAEQAESTEVS SSGISISKTPIMKMMKNKVENKRIAVHHNSVEDVPEEK
ENEIKPDREEIIVENPSSSASESNTSTSI VNRHPSTASTVVTPAAVLPGLAQVITAVSAQQNSNLI
PKVLIPVNSIPTYNAA LDNNPLLLNTYNKFPYPTMSEITVLSAQAKYTEEQIKIWFS AQRLKHGVS
WTPEEVEEARRKQFN GTVHTVPQTITVIPTHTSTGSNGLPSILQTCQIVGQPGLVLTQVAGTNTLP
VTAPIALTVAGVPSQNNI QKSQVPAAQPTAETKPATAAVPTSQSVKHETALVNPDSFGIRAKKTKE
QLAELKVSYLKNQFPHDSEIIRLMKITGLTKGEIKKWFSDTRYNQ RNSKSNQCLHLNNDSSTTIII
DSSDETTE SPTVGT AQPKQSWNPFPDFT P QKFKEKTAEQLRVLQASFLNSSVL TDEELNRLRAQTK
LTRREIDAWFTEKKKSKALKEEKMEIDESNAGSSKEEAGETSPADESCAPKSGSTGKICKKTPEQL
HMLKSAFVRTQWPSPEEYDKLAKESGLARTDIVSWFGDTRYAWKNGNLKWYYYYQSANSSSMNGLS
SLRKRGRGRPKGRGRGRPRGRPRGSKRINNWD RGP SLIKFKTG TAILKDYYLKHKFLNEQDLDLV
NKSHMGYEQVREWF AERQRRSELGIELFEENE EEEDEVIDDQE EDEEETDDSDTWEP PRHVK RKL SK
SDD

>ZNF33B

CYECGKTFCLKSDLTIHQRTHTGEKPFACPECGKFFSHKSTLSQH YRTHTGEKPYECHECGKIFYN
KSYLTKHNRTHTGEKPYECNECGKTF CQKSQLTQHQR IHIGEKPYECNECGKAFCHKSA L I VHQR T
HTQEKPYK CNECGKBFCVKSG LILHERKHTGEKPYECNECGKSFSHKSSLTVHYRAHTGEKSCQCN
ECGKIFYRKSDLAKHQRSH TGEKPYECNTCRKTF SQKSNLIVHQRT HIGEKPYE

Figure 6 (continued)

>ALEX2

GCCGAATCAGTAGTTGGGGCTGCAATGGCTTCTGCAATAGCACACCTCCCGGGGTGACAGAGGCC
CTTGGGGCTGCAGAAGCCCCCTGCAATGGCAGGGGCTCCCAAAGTGGCAGAAGCTCCAGAGAAGCG
GAGACTTCCAGGGCAGCGGTGCCTCCTGGGACAGTGGTGCCTACCGAAGCGGCAGCACCCA CTGAG
GTGACCGAGGGTCTGCGGGTAGCAGCACCTACCAAGGTAGCTGAAGCTCCCGGGGTGGCATCGCCT
ACCGAGGCAGCTGAGGCTCCTGTGCCCGCAACGCCTACTGGGGCTGCAGCACCTACTGGGGCTGCA
GAGTCTCCTGGAATTTCTGGTTCCCTTAGAACAGCGGTGGTTCTTGGAACTATCAGCTGCCAAGAAA
GCAACCCCTGGGGCTCACACTGGGGCTATACCGAAAGCCACATCAGCGACTGGAGCGGTACCCAAA
GGTGGAGGCAAGGGTGTAAACAGGTCCCGGAATGGGGGCAAGGGCAAGGGCAAGAAAAGCAAGATT
GAAGTAGACGAACTGGGGATGGGCTTCCGTCTGGAGATGGGGCTGCAGCAGCTGCTGCAGCCTCT
GCTAATGGCGGACAGGCTTTCTGGCAGAGGTCCCTGATTCTGAGGAAGGGGAGTCCGGGTGGACT
GACACAGAGTCAGATTGAGACTCTGAGCCCCGAGACCCAGCGCAGAGGGAGGGGAAGAAGACCCGTT
GCCATGCAGAAAGCGCCCTTTCTTATGAAATTGATGAGATTCTGGGTGTCCGCGATCTCAGGAAG
GTCCTTGCTTTGCTTCAGAAATCTGATGATCCTTTTCATCCAACAGGTAGCTTTGCTCACTCTGAGC
AACATGCCAATTATTTCATGCAATCAAGAGACAATCCGCAAAATTGGGAGGCCTCCCAATTATTGCA
AACATGATCAACAAAACCTGATCCACACATTAAGGAAAAAGCCTTAATGGCCATGAATAACCTGAGT
GAGAATTATGAAATCAGGGCCGGCTTCAGGTGTACATGAATAAAGTGATGGATGATATCATGGCC
TCTAACCTGAACTCAGCAGTTCAAGTAGTTGGACTAAATTTCTAACAAACATGACTATTACTAAT
GACTACCAACACCTGCTTGTCAATTCCATTGCAAACTTTTCCGTTTGCTATCTCAGGGAGGTGGA
AAAATCAAGGTTGAGATTTTGAATACTTTTTCGAATTTTGCTGAAAATCCAGATATGTTGAAGAAA
CTTCTCAGTACCCAAGTGCCAGCATCATTTAGTTCCCTCTATAATTCTTACGTGGAATCAGAAATC
CTTATTAATGCCCTTACTCTATTTGAGATTATCTATGACAATCTCAGAGCAGAAGTGTTAACTAT
AGAGAATTCAATAAAGGTTCCCTTTTACTTATGCACTACATCTGCAAGTGTGTGTTAAGAAAATT
AGAGCCTTAGCAAAATCACCATGACCTCTTAGTGAAAGTGAAAGTTATAAACTAGTGAACAAATTC
>APP1

GAGGAAGAGGAGGAATCCTTCCCACAGCCAGTAGATGATTACTTTCGTGGAGCCTCCGCAGGCTGAA
GAGGAAGAGGAAACGGTCCCACCCCAAGCTCCCATACACTTGCAGTGGTGGGCAAGTCACTCCC
ACCCCGAGGCCACAGACGGTGTGGATATTTACTTTGGCATGCCTGGGGAATCAGTGAGCAGGAG
GGGTTCTTGAGGGCCAAGATGGACCTGGAGGAGCGTAGGATGCGCCAGATTAATGAGGTGATGCGT
GAATGGGCCATGGCAGACAACCAAGTCCAAGAACCTGCCTAAAGCCGACAGACAGGCCCTGAATGAG
CACTTCCAGTCCATTCTGACAGACTCTGGAGGAGCAGGTGTCTGGTGAGCGACAGCGCCTGGTGAA
ACCCACGCCACCCGCGTCATCGCCCTTATCAACGACCAAGCGCCGGGCTGCCTTGGAGGGCTTCCTG
GCAGCCCTGCAGGCAGATCCGCTCAGGCGGAGCGGTGCTGTTGGCCCTGCGGCGCTACCTGCGT
GCGGAGCAGAAGGAACAGAGGCACACGCTGCGCCACTACCAGCATGTGGCCGCGGTGGATCCCGAG
AAGGCACAGCAGATGCGCTTCCAGGTGCATACCCACCTTCAAGTGATTGAGGAGAGGGTGAATCAG
AGCCTGGGCCTGCTTGACCAGAACCCCACTGGCTCAGGAGCTGCGGCCCAAAATCCAGGAATCT
CTCCACTCTGAACACCTGGGTCCAGTGAATTGGAAGCCCTGCCCCCTGGGGCAGCAGCGAGGAC
AAGGGTGGGCTGCAGCCTCCAGATTCCAAGGATGACACCCCATGACCCTTCCAAAAGGGTCCACA
GAACAAGATGCTGCATCCCTGAGAAAGAGAAGATGAACCCGCTGGAACAGTATGAGCGAAAGGTG
AATGCGTCTGTTCCAGGGGTTTTCCCTTTTCACTCATCGGAGATTGAGAGGGATGAGCTGGCACCAG
CTGGGACAGGGGTGTCCCGTGAGGCTGTGTGCGGTCTGC

Figure 6 (continued)

>BAIP1

CGGCCGCGGACGAAGATGGCGACCGCCATGTACTTGGAGCACTATCTGGACAGTATCGAGAACCTT
CCCTGCGAACTTCAGAGGAACCTTCAGCTGATGCGAGAGCTGGACCAGAGGACGGAAGATAAGAAA
GCAGAGATTGACATCCTGGCTGCAGAGTACATCTCCACGGTGAAGACGCTGTCTCCAGACCAGCGC
GTGGAGCGCCTGCAGAAGATCCAGAACGCCTACAGCAAGTGCAAGGAATACAGTGACGACAAAGTG
CAGCTGGCCATGCAGACCTACGAGATGGTGGATAAACAACATTCGAAGGCTTGATGCAGACCTGGCG
CGCTTTGAAGCAGATCTGAAGGACAAGATGGAGGGCAGCGATTTTGAAAGCTCCGGAGGGCGAGGG
TTAAAAAAGGCCGGGGTCAAGAAAGAAAAAGAGGGTCCCGGGGCGAGGCAGGAGGACATCAGAG
GAAGACACACCAAAGAAAAAGAACACAAAGGAGGGTCTGAGTTCACTGACACCATECTGTCCGTG
CACCCCTCTGATGTGCTGGACATGCCCGTGGACCCAAACGAACCCACGTAAGTGCCTGTGCCACCAG
GTCTCCTATGGGGAGATGATTGGCTGTGACAATCCAGACTGTCCAATTGAGTGGTTTCACTTTGCC
TGCGTGGACCTTACCACGAAACCCAAAGGAAAATGG

>BAIP2

AGCCAGCAGGCCAGCGTGACCATGCACGATGTGGACGCCGAGTCCCTTCGAGGTGTTGGTCGACTAC
TGCTACACGGGTCTGTGTCTCTCAGTGAGGCCAATGTGCAGCGCCTGTACGCGGCCCTCCGACATG
CTACAGCTGGAATATGTGCGGGAAGCCTGTGCCTCCTTCTTAGCCCGACGTCTTGACCTGACCAAC
TGCACCGCCATCCTCAAGTTTGACAGCGCCTTCGACCATCACAAGCTTCGATCTCAGGCCCAGTCC
TACATAGCTCACAACCTCAAGCAGCTCAGCCGAATGGGTTCAATTTCGGGAGGAGACTCTAGCAGAT
CTAACCCCTGGCCAGCTGCTGGCTGTCTACGCCCTGGATAGTCTGGACATAGAGAGTGAGCGGACT
GTATGCCATGTAGCTGTGCAGTGGCTGGAGGCTGCTGCCAAAGAGCGGGTCCCACTGCTGCAGAA
GTCTTCAAGTGCGTGGCTGGATGCACCTTCACTGAAGAAGATCAGGACTACTTAGAAGGGCTGCTG
ACCAAGCCCATCGTGAAGAAGTACTGCCTGGACGTTATTGAAGGGGCCCTGCAGATGCGCTATGGT
GACCTGTGTACAAAGTCTCTGGTGGCAGTGCCAAACAGCAGCAGCAGTAGCAGCAGCAACTCT
CTTGATCTGTCAGCAGAAAATCCACCCCAGAGACTGGGTATGTGTGCCAAGGAGATGGTGATCTTC
TTTGGACATCCTAGAGATCCCTTTCTCTGCTATGACCCTTACTCGGGGGACATTTACACAATGCCA
TCCCCTTTGACCAGCTTTGCTCACACTAAGACTGTCACTCCTCAGCTGTCTGTGTGTCCCAGAC
CATGACATCTATCTAGCTGCTCAGCCCAGGAAAGACCTCTGGGTGTATAAACACAGCTCAGAATAGT
TGGCAGCAACTTGACAGATCGCTTGCTGTGTCTGAGGGCATGGATGTGGCATACTCAATGGCTAC
ATCTACATTTTGGGGGACGAGACCCCTATTACTGGAGTTAAGTTGAAGGAAGTGGAATGCTACAGT
GTTTCAGAGAAACAGTGGGCATTGGTGGCTCCTGTCCCTCATTCCCTTCTATTCTTTGAACTCATA
GTGGTTTCAGAACTATCTTTATGCTGTCAACAGTAAGCGCATGCTTTGCTATGATCCTAGCCACAAT
ATGTGGCTGAACGTGCTTCTCTTAAACGTAGTGACTTTCAGGAAGCATGTGTCTTCAATGATGAA
ATCTATTGTATCTGTGACATCCAGTCATGAAGGTCTACAACCCAGCTAGGGGAGAAATGGAGGCGG
ATTAGTAATATTCTTTGGATTTCAGAGACCCACAACCTACCAGATTGTCAATCATGACCAAAAAGTTG
CTTCTCATCACTTCTACAACCCACAATGGAAAAAGAACCGAGTGACAGTGTATGAGTATGATACT
AGGGAAGATCAGTGGATTAAATATAGGTACCATGTTAGGCCTTTTGACGTTTGACTCTGGCTTTATT
TGCCCTTTGTGCTCGTGTATTATCCTTCCCTGCTTGAACCTGGTCAGAGTTTTATTACTGAGGAAGAT
GATGCACGGAGTGAGTCTAGTACTGAATGGGACTTAGATGGATTCAAGTGAGCTGGACTCTGAGTCA
GGAAGTTCAAGTTCTTTTTTCAGATGATGAAGTCTGGGTGCAAGTAGCACCTCAGCGAAATGCACAG
GATCAGCAGGGTTCTTTG

Figure 6 (continued)

>BAIP3

GGACACAATGCCCCCAGAAAAGTAACAGCCGTCAATTTATGCTAGAAAAGGAAGTGTCTCCAGAGC
ATAGAGAAAATAAGTTCTCTGTTGATGCAACAACCTGTTACTTCACAACAGTGTGTTTTTCAGAGAC
CAAGAACCAGATCCATAATGAGATGGCATCAACATCAGATAAAGGTGCCCAAGGAAGAAATGAC
AAGAAAGATTCTCAAGGAAGAAGTAATAAGGCATTACATCTGAAGAGTGATGCTGAATTTAAAAAG
ATATTTGGCCTTACTAAGGATTTTGAGAGTGTGCCTTACTCGAATTCCTGACCATTGGACCTGTGGA
GAAGGTTTCGATTCTTTAGCAGTTTGGTAAAGAGTGTACTTACAAGAGACAGAGTTTATGTTG
AAGGAAGGAGAGAGAAAACAGCAGAATTTTGATAAGAAAAGAAAAGCAAAAACATAATAAGAGATG
GATCACATAAAGAAGAGAAAAACAGAGAATGCTTATAACGCAATCATAAATGGGGAAGCTAATGTC
ACCGGTTCCCAACTCCTAAGCAGTATTTTACCAACTTCAGATGTGTCAACAACATAACATTCACAG
AGTCACAGCAAAAACAGACAAGAAAAGAGAACTGAGATGGAATACCTATACCCATGAGAAGCAAGAG
AAAGGCACCTTTGAATTCAAATGCAGCTTATGAACAAAGTCATTTCTTCAATAAAAATTATACCGAA
GATATTTTCCCGAGTGACACCACCGGAGTTAGAAGAAACCATTTCGAGATGAAAAAATAAGAAAGACTT
AAGCAGGTGCTGAGAGAGAAAGAAGCAGCTCTTGAAGAAATGCGTAAGAAGATGCACCAAAAAA

>BARD1

TTGGCCGGTTTCGAGTGGCTGACCTGCAGCTTCCCTGTGGTTTCCCGAGGCCTCCTTGCTTCCCGC
TCTCCGAGGAGCCTTTTCATCCGAAGGCGGGACGATGCCGGATAATCGGCAGCCGAGGAACCGGCAG
CCGAGGATCCGCTCCGGGAACGAGCCTCGTTCCGCGTCCGCCATGGAACCGGATGGTCGCGGTGCC
TGGGCCCCACAGTCGCGCCGCGCTCGACCGCCTGGAGAAGCTGCTGCGCTGCTCGCGTTGTAATAAC
ATTCTGAGAGAGCCTGTGTGTTTAGGAGGATGTGAGCACATCTTCTGTAGTAATTTGTAAAGTGAC
TGCAATTGGAACGGATGTCCAGTGTGTACACCCCGGCTGGATACAAGACTTGAAGATAAATAGA
CAACTGGAACAGCATGATTCAACTTTGTAGTAAGCTTCGAAATTTGCTACATGACAATGAGCCGTCA
GATTTGAAAGAAGATAAACCTAGGAAAAGTTTGTAAATGATGCAGGAAACAAGAAGATTCAATT
AAAATGTGGTTTAGCCCTCGAAGTAAGAAAGTCAGATATGTTGTGAGTAAAGCTTCAGTGCAAAAC
CAGCCTGCAATAAAAAAGATGCAAGTGCTCAGCAAGACTCATATGAATTTGTTTTCCCAAGTCCT
CCTGCAGATGTTTCTGAGAGGGCTAAAAAGGCTTCTGCAAGATCTGAAAAAAGCAAAAAAAGAAA
ACTTTAGCTGAATCAACCAAAAATGGAATTTAGAGGCAGAAAAAGAAGATGGTGAATTTGACTCC
AAAGAGGAATCTAAGCAAAAGCTGGTATCCTTCTGTAGCCAAACATCTGTTATCTCCAGTCTCAG
ATAAATGGTGAATAGACTTACTAGCAAGTGGCTCCTTGACAGAATCTGAATGTTTTGGAAGTTTA
ACTGAAGTCTCTTTACCATTTGGCTGAGCAAAATAGAGTCTCCAGACACTAAGAGCAGGAATGAAGTA
GTGACTCCTGAGAAGGTCTGCAAAAATTATCTTACATCTAAGAAATCTTTGCCATTAGAAAATAAT
GGAAAACGTGGCCATCACAATAGACTTTCCAGTCCCATTCTAAGAGATGTAGAACCAGCATTTCTG
AGCACCAGTGGAGATTTTGTAAAGCAAAACGGTGCCCTCAGAAAATATACCATTGCCTGAATGTTCT
TCACCACCTTCATGCAACGTAAGTTGGTGGTACATCAGGGAGCAAAACAGTAACATGTCCGATG
AATTCATTAGTCTTTCACCAGGTACACCACCTTCTACAT

>CA150

CAACAATTCATTCCTGGGCCCTGAAGATACTTGTGTTGGCCCTGCTGTCTATTTAGCCAAGCACCC
ACAACACAAGATCAGACCCCAAGTTCTGCTGTTTCAGTTGCCACGCCTACAGTTAGTGTTCAACT
CCTGCTCCTACAGCCACACCTGTGCAACCGTTCCCCAGCCGCACCCCTCAGACGTTACCTCCTGCT
GTTCTCATTACAGTACCTCAGCCAACAACAGCAATACCTGCTTTTCCACCAGTAATGGTACCTCCG
TTTCGTGTTCCCTTCTGTCATGCCAATTCACCTTCAGGTGTATTGCCAGGAATGGCCCCCTCCT
ATCGTACCCATGATACATCCCCAGGTGTGCTATTGCAGCTTCACCTGCTACCTTAGCTGGAGCAACA
GCAGTTTCTGAATGGACTGAATATAAAACAGCAGATGGGAAGACATATTATTATAATAATAGAACA
TTAGAATCAACCTGGGAAAAACCCCAAGAACTAAAGGAAAAAGAAAGTTAGAAGAGAAGATTAAAG
GAGCCAATTAAAGAACCCCTCTGAAGAGCCTCTGCCAATGGAGACGGAGGAGGAGGATCCTAAAGAA
GAGCCTATAAAGGAGATAAAGGAGGAGCCCAAGAAAGAGGAGATGACTGAAGAAGAAAAGGCTGCC
CAGAAGGCCAAAGCCAGTTGCTACTGCTCCTATTCTGTTTCTATGTGGGACCGACCTGATGATCTG
GATGAGCGGGTCTTCTTTTATAATCCCACTCGTCTTCTATGTGGGACCGACCTGATGATCTG
ATTGGCAGGGCAGATGTTGACAAAATTATTCAGGAGCCCCCTCATAAAAAAGGAATTGGAGGAATTG
AAGAACTAAGGCACCCAACTCCGACAATGCTGTGATCCAAAAGTGGCAATTTCTATGAGTGCA
ATTAAGAGGAACAAGAATTAATGAAGAAATTAATGAAGATGAGCCTGTAAAGCAAAAAAACGG
AAG

Figure 6 (continued)

>CGI-125

TTCCGACGCGTCCGCGCGGAACTTCGCCCGCGTCTCTGGGCTTTTGCTCTGTCTCAGGCTGGTGGCGTT
TTGGTGTCTTCGTTTGTTATGGCCGCTGCTGTGCTATGGAGACAGATGATGCTGGAAATCGACTT
CGGTTTTCAGTTGGAGTTGGAATTTGTGCAATGTTTAGCCAACCCAAATTACCTTAATTTTC TTGCC
CAAAGAGGTTACTTCAAAGACAAAGCTTTTGTTAATTATCTTAAATACTTGCTTTACTGGAAGAC
CCAGAATATGCCAAGTATCTAAAGTACGCTCACTGTTTACAGATGCTTAGAGGTGCTGCAATATCAA
CACTTCCGAAAGCAGCTGGTGAATGCTCAGTGTGCGAAATTTATGATGAACAGCAGATTCTACAT
TGGCAGCACTATTCCCGGAAGCGGATGCGCCTTCAGCAAGCCTTGGCAGAGCAGCAACAGCAAAAT
AACACATCGGGAAA

>CGI-74

GTAGAGAAAGCACGGGCAAAGAAAAGAGAAGCAGAGGAAGTTTATCGGAATTCTATGCCAGCTTCC
AGTTTTTCAGCAGCAGAACTTCGAGTCTGTGAAGTCTGCTCTGCCTATTTAGGACTTCATGATAAT
GACAGACGACTGGCTGATCATTTTGGGGGTAAACTGCACCTGGGATTTATTGAAATAAGAGAGAAAG
CTTGAAGAATTAAAGAGAGTCTAGCTGAGAAGCAGGAGAAAAGAAACCAGGAACGGCTGAAACGA
AGAGAAGAGAGAGAGAGAGAAGAAAGGGAGAAGCTGAGGAGGTCCCGATCACACAGCAAGAAATCCA
AAAAGG

>CLH-17

ATGGCCCAGATTCTGCCAATTCGTTTTCAGGAGCATCTCCAGCTCCAGAACCTGGGTATCAACCCA
GCAAACATTGGCTTCAGTACCTGACTATGGAGTCTGACAAATTCATCTGCATTAGAGAAAAAGTA
GGAGAGCAGGCCCAGGTGGTAAATCATTGATATGAATGACCAAGTAATCCAATTGGAAGACCAATT
TCAGCAGACAGCGCCATCATGAATCCAGCTAGCAAAGTAATTGCACTGAAAGCTGGGAAAACTCTT
CAGATTTTTTAACATTGAAATGAAAAGTAAAATGAAGGCTCATACCATGACTGATGATGTCACCTTT
TGGAATGGATCTCTTTGAATACGGTTGCTCTTGTGTACGGATAATGCAGTTTATCACTGGAGTATG
GAAGGAGAGTCTCAGCCAGTGAATATGTTGATCGCCATTCTAGCCTTGACAGGGTGCCAGATTATC
AATTACCGTACAGATGCAAAACAAAAGTGGTTACTTCTGACTGGTATATCTGCACAGCAAAATCGT
GTGGTGGGAGCTATGCAGCTATATTCTGTAGATAGGAAAGTGTCTCAGCCCATGGAAGGACATGCA
GCTAGCTTTGCACAGTTTAAAGATGGAAGGAAATGCAGAAGAATCAACGTTATTTTTGTTTGCAGTT
CGGGGCCAAGCTGGAGGGAAGTTACATATTATTGAAGTTGGCACACCACCTACAGGGAACCAGCCC
TTTCCAAAGAAGGCAGTGGATGCTCTTCTTCCCTCCAGAAGCACAAATGATTTTCTCTGTGCAATG
CAGATCAGTGAAAAGCATGATGTGGTGTCTTGATAACCAAGTATGGTTATATCCACCTCTATGAT
CTTGAGACT

>CLK1

GACGCGTGGGTTCTGGAACATCTGAATACAACAGACCCCAACAGTACTTTCCGCTGTGTCCAGATG
TTGGAATGGTTTGAGCATCATGGTCACATTTGCATTGTTTTTGAACATATTGGGACTTAGTACTTAC
GACTTCATTAAAGAAAATGGTTTTCTACCATTTCCAGCTGGATCATATCAGAAAGATGGCATATCAG
ATATGCAAGTCTGTGAATTTTTTGCACAGTAATAAGTTGACTCACACAGACTTAAAGCCTGAAAAC
ATCTTATTTGTGCAGTCTGACTACACAGAGGCGTATAATCCAAAATAAAACGTGATGAACGCACC
TTAATAAATCCAGATATTAAAGTTGTAGACTTTGGTAGTGCACATATGATGACGAACATCAGAT
ACATTGGTATCTACAAGACATTATAGAGCACCTGAAGTTATTTTAGCCCTAGGGTGGTCCCAACCA
TGTGATGTCTGGAGCATAGGATGCATTCTTATTGAATACTATCTTGGGTTTACCGTATTTCCAACA
CACGATAGTAAGGAGCATTTAGCAATGATGGAAAGGATTCTTGGACCTCTACCAAAACATATGATA
CAGAAAACCAGGAAACGTAAATATTTTACCACGATCGATTAGACTGGGATGAACACAGTTCTGCC
GGCAGATATGTTTCAAGACGCTGTAAACCTCTGAAGGAATTTATGCTTTCTCAAGATGTTGAACAT
GAGCGTCTCTTTGACCTCATTACAGAAAATGTTGGAGTATGATCCAGCCAAAAGAATTACTCTCAGA
GAAGCCTTAAAGCATCCTTTCTTTGACCTTCTGAAGAAAAGTATA

Figure 6 (continued)

>DRP-1

AAGGACAACCTTTACCCTGATCCCCGAGGGTGTCAACGGGATAGAGGAGCGGATGACCGTCTGTCTGG
GACAAGGCGGTGGCTACTGGCAAAATGGATGAGAACCAGTTTGTGCTGTCAACCAGCACCAATGCA
GCCAAGATCTTTAACCTGTACCCAAGGAAAGGGCGGATTGCCGTGGGCTCGGATGCCGACGTGGTC
ATCTGGGACCCCGACAAGTTGAAGACCATAACAGCCAAAAGTCACAAGTCGGCGGTGGAGTACAAC
ATCTTCGAGGGTATGGAGTGCCACGGCTCCCCACTAGTGGTCATCAGCCAGGGCAAGATCGTCTTT
~~GAGGAGGGAACATTAACCTGATCAAGGGCATGGGCCGCTTCATTCCGCGGAAGGCGTTCCCGGAG~~
CACCTGTACCAGCGCGTCAAAATCAGGAATAAGGTTTGTGGATTGCAAGGGGTTTCCAGGGGCATG
TATGACGGTCTCTGTGTACGAGGTACCAGCTACACCCAAATATGCAACTCCCGCTCCTTCAGCCAAA
TCTTCGCCCTTCTAAACACCAGCCCCACCCATCAGAAACCTCCACCAGTCCAACCTTCAGCTTATCA
GGTGCCAGATAGATGACAACAATGCCAGGCGCACCGGCCACCGCATCGTGGCGCCCCCTGGTGGC
CGCTCCAACATCACCAGCCTCGGT

>EF1A

ATGCACCATGAAGCTTTGAGTGAAGCTCTTCCTGGGGACAATGTGGGCTTCAATGTCAAGAATGTG
TCTGTCAAGGATGTTCTGCTGGCAACGTTGCTGGTGACAGCAAAAATGACCCACCAATGGAAGCA
GCTGGCTTCACTGCTCAGGTGATTATCCTGAACCATCCAGGCCAAATAAGCGCCGGCTATGCCCT
GTATTGGATTGCCACACGGCTCACATTGCATGCAAGTTTGTGAGCTGAAGGAAAAGATTGATCGC
CGTTCTGGTAAAAAGCTGGAAGATGGCCCTAAATTCTTGAAGTCTGGTGATGCTGCCATTGTTGAT
ATGGTTCTGGCAAGCCCATGTGTGTTGAGAGCTTCTCAGACTATCCACCTTTGGGTGCTTTGCT
GTTCTGTATATGAGACAGACAGTTGCGGTGGGTGTATCAAAGCAGTGGACAAGAAGGCTGCTGGA
GCTGGCAAGGTCAACAGTCTGCCAGAAAGCTCAGAAGGCTAAA

>EF1G(bait)

GCGGCTGGGACCCTGTACACGTATCCTGAAAACCTGGAGGGCCTTCAAGGCTCTCATCGCTGCTCAG
TACAGCGGGCTCAGGTCCGCGTGCTCTCCGCACCACCCCACTTCCATTTTGGCCAAACCAACCGC
ACCCCTGAATTTCTCCGCAAATTTCTGCGCGCAAGGTCCAGCATTTGAGGGTGATGATGGATTCT
TGTGTGTTTGAGAGCAACGCCATTGCCTACTATGTGAGCAATGAGGAGCTGCGGGGAAGTACTCCA
GAGGCAGCAGCCCAGGTGGTGCAGTGGGTGAGCTTTGCTGATTCCGATATAGTGCCCCCAGCCAGT
ACCTGGGTGTTCCCCACCTTGGGCATCATGCACCACAACAAACAGGCCACTGAGAATGCAAAGGAG
GAAGTGAGGCGAATTCTGGGGCTGCTGGATGCTTACTTGAAGACGAGGACTTTTCTGGTGGGCGAA
CGAGTGACATTGGCTGACATCACAGTTGTCTGCACCCTGTTGTGGCTCTATAAGCAGGTTCTAGAG
CCTTCTTTCCGCCAGGCCTTTCCCAATACCAACCGCTGGTTCTCACCCTGCATTAACCAGCCCCAG
TTCCGGGCTGTCTTGGGCGAAGTGAACTGTGTGAGAAGATGGCCCAGTTTGATGCTAAAAAGTTT
GCAGAGACCCCAACCTAAAAAGGACACACCACGGAAAGAGAAGGTTTACGGGAAGAGAAGCAGAAG
CCCCAGGCTGAGCGGAAGGAGGAGAAAAAGGCGGCTGCCCTGCTCCTGAGGAGGAGATGGATGAA
TGTGAGCAGGCGCTGGCTGCTGAGCCCAAGGCCAAGGACCCCTTCCGCTCACCTGCCCAAGAGTACC
TTTGTGTTGGATGAATTTAAGCGCAAGTACTCCAATGAGGACACACTCTCTGTGGCACTGCCATAT
TTCTGGGAGCACTTTGATAAGGACGGCTGGTCCCTGTGGTACTCAGAGTATCGCTTCCCTGAAGAA
CTCACTCAGACCTTCATGAGCTGCAATCTCATCACTGGAATGTTCCAGCGACTGGACAAGCTGAGG
AAGAATGCCTTCGCCAGTGTATCTTTTGGAAACCAACAATAGCAGCTCCATTTCTGGAGTCTGG
GTCTTCCGAGGCCAGGAGCTTGCCCTTCCGCTGAGTCCAGATTGGCAGGTGGACTACGAGTCATAC
ACATGGCGGAAACTGGATCCTGGCAGCGAGGAGACCCAGACGCTGGTTCCGAGAGTACTTTTCTGG
GAGGGGGCCTTCCAGCATGTGGGCAAAGCCTTCAATCAGGGCAAGATCTTCAAG

Figure 6 (continued)

>EF1G(pre)

GCGGCTGGGACCCCTGTACACGTATCCTGAAAACCTGGAGGGCCTTCAAGGCTCTCATCGCTGCTCAG
TACAGCGGGGCTCAGGTCCGCGTGCTCTCCGCACCACCCCACTTCCATTTTGGCCAAACCAACCGC
ACCCCTGAATTTCTCCGCAAATTTCTGCGGCAAGGTCCCAGCATTGAGGGTGATGATGCGATTG
TGTGTGTTTGAGAGCAACGCCATTGCCTACTATGTGAGCAATGAGGAGCTGCGGGGAAGTACTCCA
GAGGCAGCAGCCAGGTGGTGCAGTGGGTGAGCTTTGCTGATTCCGATATAGTGGCCCCAGCCAGT
~~ACCTGGGTGTTCCCCACCTTGGGCATCATGCACCACAACAAACAGGCCACTGAGAATGCAAAGGAG~~
GAAGTGAGGCGAATTCTGGGGCTGCTGGATGCTTACTTGAAGACGAGGACTTTTCTGGTGGGCGAA
CGAGTGACATTGGCTGACATCAGATTGTCTGCACCCTGTTGTGGCTCTATAAGCAGGTTCTTAGAG
CCTTCTTCCGCCAGGCCCTTTCCCAATACCAACCGCTGGTTCCTCACCTGCATTAACCGCCAG
TTCCGGGCTGTCTTGGGCGAAGTGAAACTGTGTGAGAAGATGGCCAGTTTGAATGCTAAAAAGTTT
GCAGAGACCCAACTAAAAAGGACACACCACGGAAAGAGAAGGGTTTACGGGAAGAGAAGCAGAAG
CCCCAGGCTGAGCGGAAGGAGGAGAAAAAGGCGGCTGCCCCCTGCTCCTGAGGAGGAGATGGATGAA
TGTGAGCAGGCGCTGGCTGCTGAGCCCAAGGCCAAGGACCCCTTTCGCTCACCTGCCCAAGAGTACC
TTTGTGTTGGATGAATTTAAGCGCAAGTACTCCAATGAGGACACACTCTCTGTGGCACTGCCATAT
TTCTGGGAGCACTTTGATAAGGACGGCTGGTCCCTGTGGTACTCAGAGTATCGCTTCCCTGAAGAA
CTCACTCAGACCTTTCATGAGCTGCAATCTCATCACTGGAATGTTCCAGCGACTGGACAAGCTGAGG
AAGAATGCCCTTCGCCAGTGTCTATCCTTTTGGAAACCAACAATAGCAGCTCCATTTCTGGAGTCTGG
GTCTTCCGAGGCCAGGAGCTTGCCTTTCGCTGAGTCCAGATTGGCAGGTGGACTACGAGTCATAC
ACATGGCGGAAACTGGATCCTGGCAGCGGAGGAGACCCAGACGCTGGTTCCGAGAGTACTTTTCTG
GAGGGGGCCTTCCAGCATGTGGGCAAAGCCTTCAATCAGGGCAAGATCTTCAAG

>FEZ1

GGCAACTGCTCTGACACTGAGATCCATGAGAAAGAAGAGGAAGAGTTCAATGAGAAGAGTGAAAAAT
GATTCGGGTATCAACGAGGAGCCTCTGCTCACAGCAGATCAGGTAATTGAGGAGATGAGGAAATG
ATGCAGAACTCCCAGACCCTGAGGAAGAAGAGGAGGTTCTGGAAGAAGAGGATGGAGGAGAACT
TCCTCCCAGGCAGACTCGGTCCTCCTGCAGGAGATGCAGGCATTGACACAGACCTTCAACAACAAC
TGGTCTTATGAAGGGCTGAGGCACATGTCTGGGTCTGAGCTGACCGAGCTGCTGGACCAGGTGGAG
GGTGCCATCCGTGACTTCTCGGAGGAGCTGGTGCAGCAGCTGGCCCCGCGGGACGAGCTGGAGTTT
GAGAAGGAAGTGAAGAACTCCTTTATCACGGTGCTTATTGAGGTTCAAGACAAGCAGAAGGAGCAG
CGAGAAGTATGAAAAAGAGGCGGAAAGAGAAAGGGCTGAGCCTGCAGAGCAGCCGGATAGAGAAG
GGAACACAGATGGCTCTCAAGCGCTTCAGCATGGAAGGCATCTCCAACATTCTGCAGAGTGGCATC
CGCCAGACCTTTGGCTCCTCAGGAAGTGAACAACAGTATCTGAACACAGTCATTCTTACGAGAAG
AAAGCCTCTCCTCCTCAGTGGAAGACCTGCAGATGCTGACAAACATTCTCTTTGCCATGAAGGAG
GATAATGAGAAGGTGCCTACTTTGCTAACGGACTACATTTTAAAGTGCTCTGCCCTACC

>G45IP1

ATGGCGTCGAGCGGCGGGGAGCTAGGGAGTTTATTTGATCACCACGTCCAGAGGGCGGTATGCGAC
ACACGGGCCAAATATCGAGAGGGACGACGGCCTCGTGCTGTGAAGGTATATACAATCAATTTGGAA
TCTCAGTACTTATTAATACAAGGAGTTCCTGCTGTGGGAGTCATGAAGGAATTAGTTGAGCGATTG
GCTTTATATGCTGCAATTGAACAGTACAATGCTCTAGATGAATACCCAGCAGAAGACTTTACTGAA
GTTTATCTTATTAATTTATGAACCTTACAAAGTGCAAGGACAGCCAAGAGAAAAATGGATGAACAG
AGTTTCTTCGGTGGATTGCTTCATGTGTGCTATGCTCCAGAATTTGAAACAGTTGAAGAACTAGA
AAAAACTACAAATGCGGAAGGCATATGTAGTAAAAACTACTGAAAAATAAGACCATTACGTGACA
AAGAAGAAATGGTTACAGAGCATAAAGACACAGAGGATTTTAGACAAGACTTCCACTCAGAGATG
TCTGGATTTTGTAAGCTGCTTTGAACACTTCTGCAGGGAACCTCAAATCCTTATCTTCCGTATTCC
TGTGAATTGCCCTTATGTTATTTCTCCTCAAAATGTATGTGTTTCATCCGGGGGACCTGTAGACAGA
GCACCAGACTCCTCTAAGGATGGTAGAAACCATCATAAAACAATGGGGCATTATAACCACAATGAC
TCTTTGCGGAAAAACACAGATAAACTCTTTGAAAACTCAGTGGCCTGCCCTGGTGCACAAAAGGCT
ATTACGTCTTCAGAGGCAGTTGACAGATTTATGCCTAGGACAACACAACCTGCAGGAGCGCAAAAGA
AGAAGAGAAGATGATCGTAACTTTGGAACCTTTCTTCAAACAACCCAACTGGTAATGAGATTATG
ATTGACCTCTGTTACCAGACATCTCTAAGAGTGGATATGCACGATGACTCATTGAATACAACGGCG
AATTTAATTCGGCATAAACTTAAAGAGGTAATTTTCATCTGTGCCAAAGCCTCCAGAGGACAAGCCA
GAAGATGTACATACAAGTCATCCATTAAACAAAGAAGAAGATA

Figure 6 (continued)

>G45IP2

AGGACCTGTATGCCCTATATATTTTCTCTGTCTTGGAGGCTCTGAAATGTTTCCGCATCAGGAAC
AATGAGAAGATGCTGAGTGACAGCCACGGCGTGGAGACCATCCGGGACATCCTGCCAGACAACAGC
CTTGGGGGCCCATCCTTCTTCAAAATCATCACGGCCAAGGCTGTCCTGAAGCTGCAGGCCGGAAC
GCCGAGGAAGCCGCCCTGTGGAGGGATCTGGTCCGCAAGCTCCTGGCATCCTACTTGGAGACAGCC
GAGGAGGCGGTGACCCCTGGGCGGGAGCCTGGATGAAAACCTGCAGGAGGTGCTGAAATTTGCGAAG
CGGGAGAATGGCTTCTCTGCTGCACTACCTGGTGGCTATCCCCATGGAGAAAGGCCTTGACTCCCAA
GGCTGCTTCTGCGCAGGCTGCTCCCGGCAGATCGGCTTCTCCTTTGTACGACCCAAAGCTCTGTGCC
TTCTCTGGCCTCTATTACTGTGACATCTGCCACCAAGACGATGCCTCAGTGATTCCGGCCAGGATC
ATCCACAACCTGGGACCTCACCAAGCGCCCGATCTGCAGGCAGGCCCTGAAGTTTCTGACACAGATC
CGGGCCAGCCCCCTCATCAACCTGCAGATGGTGAACGCGTCTCTGTACGAGCATGTGGAGCGGATG
CACTTCATTGGGAGGAGACGGGAGCAGCTGAAGCTCCTGGGGGATTACCTGGGCCTGTGCCGGAGT
GGCGCCTGAAGGAGCTCAGCAAGAGGCTGAACACACAGGAATTATCTCTTGGAAATCTCCGCATAGG
TTCAGTGTGTGCTGACCTCCAACAGATCGCAGACGGGGTGTATGAAGGATTCTCAAGGCCCTGATT
GAATTTGCCCTCCAGCATGTCTACCACTGCGACCTGTGCACCCAGCGCGGCTTCATCTGCCAGATC
TGCCAGCACCACGACATCATCTTCCCTTTGAGTTTGACACCACAGTCAGGTGTGCCGAGTGCAAG
ACCGTCTTCCACCAGAGCTGCCAGGCTGTGGTGAAGAAGGGCTGCCCCCGCTGTGCCCGCCGGCGC
AAGTACCAGGAACAGAACATTTTCGCC

>G45IP3

CCTAACAGGGGGCCCTCTCAGCCCTCCTAATGACCTCCGGCCTAGCCATGTGATTTCACTTCCACTC
CATAACGCTCCTCATACTAGGCCTACTAACCAACACACTAACCATAATGATGGCGCGATGT
AACACGAGAAAGCACATAACCAAGGCCACCAACACCTGTCCAAAAGGCTTCGATACGGGAT
AATCCTATTTATTACCTCAGAAATTTTTTTCTTCCGAGGATTTTCTGAGCCTTTTACCACTCCAG
CCTAGCCCCTACCCCCCAATTAGGAGGGCACTGGCCCCCAACAGGCATCACCCCGCTAAATCCCCT
AGAAGTCCCCTCCTAAACACATCCGTATTACTCGCATCAGGAGTATCAATCACCTGAGCTCACCA

>GADD4.5G

GGTGCAGGCGCTGAGCCGGGATTGGAGTGTGGTTGGAGTTGGGGAGCCAAGGGTGTGTGCCGGTGG
CCGGGGCTGGGGTCTCCGCCGCGCCCTCCGGCCGGCTCCCGCTCACTGCGCTGGCTCCTCCGCAGG
ATGCAGGGTGCCGGGAAAGCGCTGCATGAGTTGCTGCTGTCCGGCGCAGCGTCAGGGCTGCCTCACT
GCCGGCGTCTACGAGTCAGCCAAAGTCTTGAACGTGGACCCCGACAATGTGACCTTCTGTGTGCTG
GCTGCGGGTGAGGAGGACGAGGGCGACATCGCGCTGCAGATCCATTTTACGCTGATCCAGGCCTTC
TGCTGCGAGAACGACATCGACATAGTGCAGCTGGGCGATGTGCAGCGGCTGGCGGCTATCGTGGGC
GCCGGCGAGGAGGCGGGTGCGCCGGCGACCTGCACTGCATCCTCATTTTGAACCCCAACGAGGAC
GCCTGGAAGGATCCCGCCTTGAGAGAAGCTCAGCCTGTTTGGGAGGAGAGCCGAGCGTTAACGAC
TGGGTGCCCAGCATCACCTCCCCGAG

Figure 6 (continued)

>GIT1

CCACAGATGGCTGACAGATCTCGGCAAAAGTGCATGTCTCAGAGCCTTGACTTATCCGAATTGGCC
AAAGCTGCTAAGAAGAAGCTGCAGGCGCTCAGCAACCGGCTTTTGGAGAACTCGCCATGGACGTG
TATGACGAGGTGGATCGAAGAGAAAATGATGCAGTGTGGCTGGCTACCCAAAACACAGCACTCTG
GTGACAGAGCGCAGTGGCGTGCCCTTCTGCTGTAAACCGGAATACTCAGCCACGCGGAATCAG
GGCGGACAAAAGCTGGCCCCGCTTTAATGCCCGAGAGTTTGCCACCTTGATCATCGACATTCTCAGT
GAGGCCAAGCGGAGACAGCAGGGCAAGAGCCTGAGCAGCCCCACAGACAACCTCGAGCTGTCTCTG
CGGAGCCAGAGTGACCTCGACGACCAACACGACTACGACAGCGTGGCCTCTGACGAGGACACAGAC
CAGGAGCCCCCTGCGCAGCACCGGCGCCACTCGGAGCAACCGGGCCCGGAGCATGGACTCCTCGGAC
TTGTCTGACGGGGCTGTGACGCTGCAGGAGTACCTGGAGCTGAAGAAGGCCCTGGCTACATCGGAG
GCAAAGGTCGACGAGCTCATGAAGGTCAACAGTAGCCTGAGCGACGAGCTCCGGAGGGCTGCAGCGA
GAGATCCACAAGCTGCAGGCGGAGAACCTGCAGCTCCGGCAGCCTCCAGGGCCGGTGCCACACCT
CCACTCCCCAGTGAACGGGCGGAACACACACCCATGGCGCCAGGCGGGAGCACACACCGCAGGGAT
CGCCAGGCCCTTTTCCATGTATGAACCTGGCTCTGCCCTGAAGCCCTTTGGGGGCCCCCTGGGGAC
GAGCTCACTACGCGGCTGCAGCCTTTCCACAGCACTGAGCTAGAGGACGACGCCATCTATTCACTG
CACGTCCCTGCTGGCCTTTACCGGATCCGGAAAGGGGTGTCTGCCTCAGCTGTGCCCTTCACTCCC
TCCTCCCCGCTGCTGTCTCTGCTCCCAGGAGGGAAGCCGCCACACGAGCAAGCTTTCGCCCCACGGC
AGTGGAGCCGACAGTGACTATGAGAACACGCAAGAGTGGGGACCCACTGCTGGGGCTGGAAGGGAAG
AGGTTTCTAGAGCTGGGCAAAGAGGAAGACTTCCACCCAGAGCTGGAAAGCCTGGATGGAGACCTA
GATCCTGGGCTTCCCAGCACAGAGGATGTCTCTTGAAGACAGAGCAGGTCAACAGAACATTCAG
GAACTGTTGCGGGCAGCCAGGAGTTCAAGCATGACAGCTTCGTGCCCTGCTCAGAGAAGATCCAT
TTGGCTGTGACCGAGATGGCCTCCCTCTTCCCAAAGAGGCCAGCCTGGAGCCAGTGCGGAGCTCA
CTGCGGCTGCTCAACGCCAGCGCCTACCGGCTGCAGAGTGAGTGCCCGGAAGACAGTGCCCCCAGAG
CCCCGGCCCCCAGTGGACTTCCAGCTGCTGACTCAGCAGGTGATCCAGTGCGCCTATGACATCGCC
AAGGCTGCCAAGCAGCTGGTCAACCATCACCAACCCGAGAGAAGAAGCAG

>hADA3

AAAGATGTGGATGCCCTGCTGAAGAAGTCTGAGGCCAGCATGAACAGCCGGAAGATGGATGCCCC
TTTGGTGCCCTGACGCAGCGCCTCCTGCAGGCCCTGGTGGAGGAAAATATTATTTCCCTATGGAG
GATTCTCCTATTCTGACATGTCTGGGAAAGATCAGGGGCTGACGGGGCAAGCACCTCCCCCTCGC
AATCAGAACAAAGCCCTTCAGTGTGCCGATACTAAGTCCCTGGAGAGCCGCATCAAGGAGGAGCTA
ATTGCCCAGGGCCTTTTGGAGTCTGAGGACCGCCCCGACAGGACTCCGAGGATGAGGTCTCTGCT
GAGCTTCGCAAACGGCAGGCTGAGCTGAAGGCACTTAGTGCCCAACCGCAACCAAGAAGCACGAC
CTGCTGAGGCTGGCAAAGGAGGAGGTGAGCCGGCAGGAGCTGAGGCAGCGGGTGCGCATGGCTGAC
AACGAGGTCATGGACGCCTTTCCGAAGATCATGGCTGCCCGGCAGAAAGAAGCGGACTCCCAACCAAG
AAAGAAAAGGACCAGGCCTGGAAGACTCTGAAGGAGCGTGAGAGCATCCTGAAGCTGCTGGATGGG

Figure 6 (continued)

>HBO1
GACGCTGAGAGGCAGGAGGCACTAGGGATCGTCCGCAGGATTGGGACTGATACAGAGGCCGCCACG
GAGCCCGCCGGAGCCACCGTTCTGCTGCTGCCGCCGCTGCCCGAATCGGAACCGTTCGGGCCGCAG
CCGCCGGCAATGCCGCCGAAGGAAGAGGAATGCAGGCAGTAGTTTCAGATGGAAACCGAAGATTCCGAT
TTTTCTACAGATCTCGAGCACACAGACAGTTTCAGAAAGTGATGGCACATCCCGACGATCTGCTCGA
GTCACCCGCTCCTCAGCCAGGCTAAGCCAGAGTTCTCAAGATTCCAGTCCCTGTTCCGAAATGTTGAG
TCTTTTGGCACTGAGGAGGCTGCTTACTCTACCAAGAGTGACCCGTAGTTCAGCAGCAGCCTACC
CCAGTGACACCGAAAAAATACCCCTCTTCGGCAGACTCGTTTCATCTGGTTTCAGAAACTGAGCAAGTG
GTTGATTTTTTCAGATAGAGAAAATAAAAATACAGCTGATCATGATGAGTCACCGCCTCGAACTCCA
ACTGGAAATGCGCCTTCTTCTGAGTCTGACATAGACATCTCCAGCCCCAATGTATCTCACGATGAG
AGCATTGCCAAGGACATGTCCCTGAAGGACTCAGGCAGTGATCTCTCTCATCGCCCCAAGCGCCGT
CGCTTCCATGAAAGCTACAACCTCAATATGAAGTGCTCTACACCAGGCTGTAACTCTCTAGGACAC
CTTACAGGAAAACATGAGAGACATTTCTCCATCTCAGGATGCCCACTGTATCATAACCTCTCAGCT
GACGAATGCAAGGTGAGAGCACAGAGCCGGGATAAGCAGATAGAAGAAAGGATGCTGTCTCACAGG
CAAGATGACAACAACAGGCATGCAACCAGGCACCAGGCACCAACGGAGAGGCAGCTTCGATATAAG
GAAAAAGTGGCTGAACTCAGGAAGAAAAGAAATTCTGGACTGAGCAAAGAACAGAAAGAAATAT
ATGGAACACAGACAGACCTATGGGAACACACGGGAACCTCTTTTAGAAAACCTGACAAGCGAGTAT
GACTTGGATCTTTTCCGAAGAGCACAAAGCCCGGGCTTCAGAGGATTTGGAGAAGTTAAGGCTGCAA
GGCCAAATCACAGAGGGAAGCAACATGATTAAAACAATTGCTTTTGGCCGCTATGAGCTTGATACC
TGGTATCATTCTCCATATCCTGAAGAATATGCACGGCTGGGACGTCTCTATATGTGTGAATTCTGT
TTAAAATATATGAAGAGCCAAACGATACTCCGCCGGCACATGGCCAAATGTGTGTGGAACACCCA
CCTGGTGATGAGATATATCGCAAAGGTTCAATCTCTGTGTTTGAAGTGGATGGCAAGAAAAACAAG
ATCTACTGCCAAAACCTGTGCCTGTTGGCCAAACTTTTTCTGGACCACAAGACATTATATTATGAT
GTGGAGCCCTTCTGTCTATGTTATGACAGAGGCGGACAACACTGGCTGTACCTGATTGGATAT
TTTTCTAAGGAAAAGAATTCATTCTCAACTACAACGTCTCCTGTATCCTTACTATGCCTCAGTAC
ATGAGACAGGGCTATGGCAAGATGCTTATTGATTTTCAGTTATTGCTTTCCAAAGTCGAAGAAAAA
GTGCTTCTCCGCTACCTGCATAATTTTCAAGGCAAAGAGATTTCTATCAAAGAAATCAGTCAGGAG
ACGGCTGTGAATCCTGTGACATTGTCAGCACTCTGCAAGCCCTTCAGATGCTCAAATACTGGAAG
GGAAAACACCTAGTTTTAAAGAGACAGGACCTGATTGATGAGTGGATAGCCAAAGAGGCCAAAAGG
TCCAACCTCCAATAAAACCATGGATCCAGCTGCTTAAAATGGACCCCTCCCAAGGGCACT

Figure 6 (continued)

>Hdd1.3

CCAAGGTTACAGCTCGAGCTCTATAAGGAAATTAAGGAAATGGTGCCCCCTCGGAGTTTGCGTGCT
GCCCTGTGGAGGTTTGTGCTGAGCTGGCTCACCTGGTTCGGCCTCAGAAATGCAGGCCTTACCTGGTG
AACTTCTGCGGTGCCTGACTCGAACAAGCAAGAGACCCGAAGAATCAGTCCAGGAGACCTTGGCT
GCAGCTGTTCCCAAATTAATGGCTTCTTTTGGCAATTTTGCAAATGACAATGAAATTAAGGTTTTG
TTAAAGGCTTTTATAGCGAAGCTGAAGTCAAGCTGCGGCGAGCTTGGGCGGACAGCGGCTGGATCA
GCAGTGAGCATCTGCCAGCACTCAAGAAGGACACAATATTTCTATAGTTGGCTACTAAATGTGCTC
TTAGGCTTACTCGTTCCTGTGCGAGGATGAACACTCCACTCTGCTGATTCTTGGCGTGCTGCTCACC
CTGAGGTATTTGGTGCCCTTGCTGCAGCAGCAGGTCAAGGACACAAGCCTGAAAGGCAGCTTCGGA
GTGACAAGGAAAGAAATGGAAGTCTCTCTTCTGCAAGCAGCTTGTCCAGGTTTATGAACTGACG
TTACATCATACACAGCACCAAGACCACAATGTTGTGACCGGAGCCCTGGAGCTGTTGCAGCAGCTC
TTCAGAACGCCTCCACCCGAGCTTCTGCAAACCTGACCGCAGTCGGGGGCAATTGGGCAGCTCACC
GCTGCTAAGGAGGAGTCTGGTGGCCGAAGCCGTAGTGGGAGTATTGTGGAACCTTATAGCTGGAGGG
GGTTCCTCATGCAGCCCTGTCTTTCAAGAAAACAAAAAGGCAAAGTGCTCTTAGGAGAAGAAGAA
GCCTTGGAGGATGACTCTGAATCGAGATCGGATGTGAGCAGCTCTGCCTTAACAGCCTCAGTGAAG
GATGAGATCAGTGGAGAGCTGGCTGCTTCTTCAGGGGTTTCCACTCCAGGGTCAGCAGGTCTGAC
ATCATCACAGAACAGCCACGGTCACAGCACACTGCAGGCGGACTCAGTGGATCTGGCCAGCTG
>HdexQ20

ATGGCGACCCTGGAAGAGATGATGAAGGCCTTCGAGTCCCTCAAGTCCCTCCAGCAGCAGCAGCAG
CAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAACAGCCGCCACCGCCGCCGCCGCCG
CCGCCGCCGCCGCCCTCCTCAGCTTCTCAGCCGCCGCCGCCAGGCACAGCCGCTGCTGCCTCAGCCG
CAGCCG
CCG

>HdexQ51

ATGGCGACCCTGGAAGAGCTGATGAAGGCCTTCGAGTCCCTCAAGTCCCTCCAGCAGCAGCAGCAG
CAG
CAG
CAACAGCCGCCACCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCG
CAGCCGCTGCTGCCTCAGCCGCCAGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCG
CTGAGGAGCCGCTGCACCGACCGTGAGTCGAC

>HIP1

GCTGACACCCTGCAAGGCCACCGGGACCGCTTCATGGAGCAGTTTACAAAGTTGAAAGATCTGTTC
TACCGCTCCAGCAACCTGCAGTACTTCAAGCGGCTCATTAGATCCCCAGCTGCCCTGAGAACC
CCCAACTTCTGCGAGCCTCAGCCCTGTGAGAACATATCAGCCCTGTGGTGGTGATCCCTGCAGAG
GCCTCATCCCCGACAGCGAGCCAGTCTTAGAGAAGGATGACCTCATGGACATGGATGCCCTCTCAG
CAGAATTTATTTGACAACAAGTTTGATGACATCTTTGGCAGTTTATTAGCAGTGATCCCTTCAAT
TTCAACAGTCAAAATGGTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATACAGAGAG
ATCAGTGGATTGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTTGTGCTGCAGCTG
AAGGGCCACGTGAGCGAGCTGGAAGCAGATCTGGCCGAGCAGCAGCAGCTGCGGCAGCAGCGGCC
GACGACTGTGAATTCTGCGGGCAGAACTGGACGAGCTCAGGAGGCAGCGGGAGGACACCGAGAAG
GCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCTCAAGCCAATGAACAGCGATATAGCAAGCTA
AAGGAGAAGTACAGCGAGCTGGTTCAGAACCACGCTGACCTGCTGCGGAAGAATGCAGAGGTGACC
AAACAGGTGTCCATGCGCCAGACAAGCCCAGGTAGATTGGAACGAGAGAAAAAGAGCTGGAGGAT
TCGTTGGAGCGCATCAGTGACAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGC
TTGAAGCAGGAACCTTGCCACAAGCCAAACGGGAGCTTCAAGTTCTGCAAGGCAGCCTGGAACTTCT
GCCAGTCAAGAAGCAAACCTGGGCAGCCGAGTTGCGCGAGCTAGAGAAGGAGCGGGACAGCCTGTG
AGTGGCGCAGCTCATAGGGAGGAGGAATTATCTGCTCTTCGGAAGAACTGCAGGACACTCAGCTC
AAACTGGCCAGCACAGAGGAATCTATGTGCCAGCTTGCCAAAGACCAACGAAAAATGCTTCTGGTG
GGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCGTCGACGCGGCCG

Figure 6 (continued)

>HIP11

GTGGACCTTGTGACCGCCTGTGACATCCGGTACTGTGCCCAGGATGCTTTCTTCCAGGTGAAGGAG
GTGGACGTTGGGTTTGGCTGCCGATGTAGGAACACTGCAGCGCCTGCCCAAGGTCATCGGGAACCCAG
AGCCTGCTCAACGAGCTGGCCTTCACCGCCCGCAAGATGATGGCTGACGAGGCCCTGGGCAGTGGG
CTGGTCAGCCGGGTGTTCCAGACAAAGAGGTCATGCTGGATGCTGCCCTTAGCGCTGGCGGCCGAG
ATTTCAGCAAGAGCCCCGTGGCGGTGCAGAGCACCAAGGTCAACCTGCTGTATTCCCGCGACCAT
TCGGTGGCCGAGAGCCTCAACTACGTGGCGTCCTGGAACATGAGCATGCTGCAGACCCAAGACCTC
GTGAAGTCGGTCCAGGCCACGACTGAGAACAAGGAAGTGAACCCGTCACCTTCTCCAAGCTC

>HIP13

CCCTGCTGCTCTGAGGACACCATCCCTTCCCAAGTTTCAGATTATGATTATTTCTCTGTAAGTGGT
GACCAGGAGGCAGATCAGCAGGAGTTTCGACAAGTCCTCCACCATTCCAAGAAACAGCGACATCAGC
CAGTCCTACCGACGGATGTTCCAAGCCAAGCGTCCAGCCTCAACTGCTGGCCTCCCCACCACCCTG
GGACCTGGTATGGTCACTCCAGGGGTTGCAACTATCCGACGGAGCCCTTCCACCAAGCCTTCTGTG
CGCCGGGGAACCATTGGAGCTGGTCCCATCCCCATCAAGACACCCGTGATCCCTGTCAAGACCCCA
ACCGTCCAGACCTCCAGGGGTGTTGCCAGCCCCCTCCAGATGGGCCAGAAGAGCGGGGGGAGCAC
AGCCCTGAGTCGCCATCTGTGGGTGAGGGCCCCCAAGGTGTCACCAGCATGCCCTCCTCAATGTGG
AGCGGCCAAGCTTCCGTTAACCCCTCCACTTCCAGGCCCGAAGCCAGTATCCCTGAGGAGCACAGA
CAGGCAATTCCAGAAAGTGAAGCTGAAGACCAGGAACGGGAACCCCCAAGTGCCACTGTCTCCCCA
GGCCAGATTCCAGAGAGTGACCTGACACCTGAGCCCAAGGGATACTCCACAAGGAGAAGACATG
CTGAACGCCATCCGAAGGGGCGTGAACTGAAGAAGACCACGACAAACGATCGCTCAGCCCCCTCGC
TTTTCT

>HIP15

ATTACATGGCTCCACCTTATCCAAATCTAAACATGATTGAGACATTCATATGTCAAGTGTGTGAG
GAAACCCCTTGACATAGTGTGGATTCCCTTGAGCAGCTGACTGGAATAAGGATGCTTAGACACCTC
ACTATGACTATTGACTATCACACACTGATTGCCAACTATATGTCCGGGTTTCTCTCCTTATTAACC
ACAGCCAATGCGAGAACGAAGTTTCACGTTCTGAAAATGCTATTGAATTTGTCTGAAAATCCTGCT
GTGGCAAAAAAACTATTCAAGTCCAAAGCTCTTTCAATATTTGTGGGTCTCTTTAACATAGAAGAG
ACAAATGATAATATTCAAATTGTTATTAATAATGTTTCAGAATATCAGTAACATTATAAAAAGTGA
AAGATGTCCTTAATTGATGATGATTTCAGTCTTGAGCCGCTTATTTCTGCATTTCTGTGAATTTGAG
GAGTTAGCTAAGCAACTACAAGCCCAAATAGACAACCAAATGATCCTGAGGTGGGACAACAAAGT

>HIP16

GATGAAGAGGAGAGAAACCATAGGCAGATGATAAAGGAAGCTTTTGCTGGGGATGATGTCATCAGA
GATTTCTTGAAAGAGAGAAGAGGGGAAGCTGTGGAGGCGAGTAAGCCAAAGGACGTGGACCTGACACTA
CCTGGCTGGGGCGAGTGGGGTGGTGTGGGCCTAAAGCCCAAGTGCCAAGAAAAGACGCCGGTTTCTC
ATTAAAGCCCTGAGGGTCTTCCAAGAAAAGATAAGAATTTGCCAAATGTGATTATCAATGAGAAG
CGCAACATCCACGCAGCTGCTCATCAGGTACGAGTGCTTCCATATCCATTTACCCACCATTGGC
TTTGAAAGGACCATCCAGACCCCCATAGGATCCACATGGAACACCCAGAGGGCTTTCCAAAAGCTG
ACTACTCCCAAGGTCGTACCAAGCCAGGCCATATCATTAACCCCATAAAAGCAGAAGACGTGGGC
TACCGGTCTTCTCAAGGTGGACCTGTCTGTATACAGAGGAATCCAAAACGAATCACCACACGT
CACAAAAACAGCTGAAGAAATGCTCTGTAGAT

>HIP2

ATGGCCAACATCGCGGTGCAGCGAATCAAGCGGGAGTTCAAGGAGGTGCTGAAGAGCGAGGAGACG
AGCAAAAATCAAATTAAAGTAGATCTTGTAGATGAGAATTTTACAGAATTAAGAGGAGAAATAGCA
GGACCTCCAGACACACCATATGAAGGAGGAAGATACCAACTAGAGATAAAAATACCAGAAACATAC
CCATTTAATCCCCCTAAGGTCCGGTTTATCACTAAAAATATGGCATCCTAATATTAGTTCCGTCACA
GGGGCTATTTGTTTGGATATCCTGAAAGATCAATGGGCAGCTGCAATGACTCTCCGCACGGTATTA
TTGTCAATTGCAAGCACTATTGGCAGCTGCAGAGCCAGATGATCCACAGGATGCTGTAGTAGCAAT
CAGTACAAACAAAATCCCGAAATGTTCAAACAGACAGCTCGACTTTGGGCACATGTGTATGCTGGA
GCACCAGTTTCTAGTCCAGAAATACACCAAAAAATAGAAAACCTATGTGCTATGGGCTTTGATAGG
AATGCAGTAATAGTGGCCTTGTCTTCAAATCATGGGATGTAGAGACTGCAACAGAATTGCTTCTG
AGTAACTG

Figure 6 (continued)

>HIP5 (bait)

TTTCTTAAAGTATTTTAAAGAAAGAATCTAAATATGAACATGGTTATCTTAAGGCATTAA TTATA
AATCAGAGCTTTAAGTTTGGAAATCAAAAAGCAGCAGCTATCAGAGATAGTATTGAATTAA CAAAG
GAAAAAGGTGCAGAAATTCCAAAGACTATTAAAAAACTGAGGTGGTTTGATGAAACTAGCAATATA
GAAAACAATGCTGAAAACAGTCATTCACTGAAGAATAAAACAGGAACAACTCAACAGCATTCTCAA
CAATTCCACATTCAAAGTGGTGGTGGAGCAACATAATTAGTGTCTTCTACTTGTGCTGTAAATTCT
GCTGATACAAAGAAGTCCAGGGAGGATTCTATCTCTGAAAATGTTACGACTTTAGGAGGATCTGGA
GCAGACCATATGCCTTTGAACTGTTTTATACCTTCAGGTTATAACTTTGCTAAACATGCCTGGCCA
GCCTCAAAAAAAGAAGAAAGTAAATCCCTGTACATGATGATTCTAAAACCTAAGCAAGGTAAGCCA
CAAAGAGGTAGAGCAAAAATAATTAGAAAACCAGGATCTGCAAAAGTCCAATCAGGCTTTATATGT
ACAAACAGAAAAGGCGCTGTCAATCAACCACAGTCTGCAAGCAAAGTCAACATATTTACACAAGCT
CAGGGAATAATTATACCTTGTCCTCCTCCTCAATCTACATCAAATATTAGAAGTGGTAAAAAT
ATACAAGTGTCTCAGTGTCAAGCAGTAAGTCTCTGAAAATCCTCAAAACATTATTACACATAACTCT
TTTAATTCAAAACATGTGCTTCCAACAGAACACAGTTTGAATCAGTGGAAATCAGGAAAGTAGTTCT
CCTCTCTCAAATGCTTGTCTGACCTAGTCACTGTGATACCATCACTGCCATCATATTGTTCTTCA
GAGTGCCAAACTTTTCGCAAAAATAAATCATTCAAATGGCACTCAAGCAGTTGCCCCGGAAGATGCG
ACATTATATTGCACCCAAAGAAGTCCCTGTTTGTGAAGAAAGTTATCCGTCTGTGACTCTAAGAACT
GCTGAAGAAGAATCAGTTCCCTTATGGAAAAGAGGTCTTAATGTCTGTCATCAAAATAAGAGGGCT
ACAGGGTCTACTGTTATGAGAAGAAAACGAATTGCTGAAACTAAGCGGAGAAATATTTTAGAGCAG
AAAAGACAAAACCTGGATCTGTAGGACAGAAGTACAGTGTGAGCAAAATTAATAATTTTGGACAAAGT
GTCCTGCTAAGTTCAAGTGAGCCAAAACAACTACAAGGGGTACTTCTTATATTGAAGAAGTTTCA
GATAGTACTTCTGAGTTTTTGTGCTGAAAACCTTAGTGAAAGCATCAGTGCCGGAGGATGAGATT
CTGACTGTCTTGAATAGCAAACAGATACAGAAATCAAATCTACCTTTAAATAAAACTCAACAATTG
AACATCTGCACACTGTCAGCTGAAGAACAGAAGATCCTAGAGTCCCTTAATGATCTCAATGAAAGA
CTACATTATATACAAGAATCCATTTGCAAAAACCCATCCATCAAAAATACTTTACAAATAATACCA
CTTCTGGAGAAGAGAGAAGATAGAACCAGCAGCTGCAGAGACAAGAGA

>HIP5 (prey)

TTTCTTAAAGTATTTTAAAGAAAGAATCTAAATATGAACATGGTTATCTTAAGGCATTAA TTATA
AATCAGAGCTTTAAGTTTGGAAATCAAAAAGCAGCAGCTATCAGAGATAGTATTGAATTAA CAAAG
GAAAAAGGTGCAGAAATTCCAAAGACTATTAAAAAACTGAGGTGGTTTGATGAAACTAGCAATATA
GAAAACAATGCTGAAAACAGTCATTCACTGAAGAATAAAACAGGAACAACTCAACAGCATTCTCAA
CAATTCCACATTCAAAGTGGTGGTGGAGCAACATAATTAGTGTCTTCTACTTGTGCTGTAAATTCT
GCTGATACAAAGAAGTCCAGGGAGGATTCTATCTCTGAAAATGTTACGACTTTAGGAGGATCTGGA
GCAGACCATATGCCTTTGAACTGTTTTATACCTTCAGGTTATAACTTTGCTAAACATGCCTGGCCA
GCCTCAAAAAAAGAAGAAAGTAAATCCCTGTACATGATGATTCTAAAACCTAAGCAAGGTAAGCCA
CAAAGAGGTAGAGCAAAAATAATTAGAAAACCAGGATCTGCAAAAGTCCAATCAGGCTTTATATGT
ACAAACAGAAAAGGCGCTGTCAATCAACCACAGTCTGCAAGCAAAGTCAACATATTTACACAAGCT
CAGGGAATAATTATACCTTGTCCTCCTCCTCAATCTACATCAAATATTAGAAGTGGTAAAAAT
ATACAAGTGTCTCAGTGTCAACCAGTAAGTCTCTGAAAATCCTCAAAACATTATTACACATAACTCT
TTTAATTCAAAACATGTGCTTCCAACAGAACACAGTTTGAATCAGTGGAAATCAGGAAAGTAGTTCT
CCACTCTCAAATGCTTGTCTGACCTAGTCACTGTGATACCATCACTGCCATCATATTGTTCTTCA
GAGTGCCAAACTTTTCGCAAAAATAAATCATTCAAATGGCACTCAAGCAGTTGCCCCGGAAGATGCG
ACATTATATTGCACCCAAAGAAGTCCCTGTTTGTGAAGAAAGTTATCCGTCTGTGACTCTAAGAACT
GCTGAAGAAGAATCAGTTCCCTTATGGAAAAGAGGTCTTAATGTCTGTCATCAAAATAAGAGGGCT
ACAGGGTCTACTGTTATGAGAAGAAAACGAATTGCTGAAACTAAGCGGAGAAATATTTTAGAGCAG
AAAAGACAAAACCTGGATCTGTAGGACAGAAGTACAGTGTGAGCAAAATTAATAATTTTGGACAAAGT
GTCCTGCTAAGTTCAAGTGAGCCAAAACAACTACAAGGGGTACTTCTTATATTGAAGAAGTTTCA
GATAGTACTTCTGAGTTTTTGTGCTGAAAACCTTAGTGAAAGCATCAGTGCCGGAGGATGAGATT
CTGACTGTCTTGAATAGCAAACAGATACAGAAATCAAATCTACCTTTAAATAAAACTCAACAATTG
AACATCTGCACACTGTCAGCTGAAGAACAGAAGATCCTAGAGTCCCTTAATGATCTCAATGAAAGA
CTACATTATATACAAGAATCCATTTGCAAAAACCCATCCATCAAAAATACTTTACAAATAATACCA
CTTCTGGAGAAGAGAGAAGATAGAACCAGCAGCTGCAGAGACAAGAGA

Figure 6 (continued)

>HMP

CAAGAACAAAGTTAAAAATTGAGTCTCTAGCCAAAGAGCTTAGAAGATGCTCTGAGGCAAACCTGCAAGT
GTCACCTCTGCAGGCTATTGCAGCTCAGAATGCTGCGGTCCAGGCTGTCAATGCACACTCCAACATA
TTGAAAGCCCGCCATGGACAATTCTGAGATTGCAGGCGAGAAGAAATCTGCTCAGTGGCGCACAGTG
GAGGGTGCATTGAAGGAACGCAGAAAGGCAGTAGATGAAGCTGCCGATGCCCTTCTCAAAGCCAAA
~~GAAGAGTTAGAGAAGATGAAAAGTCTGATTGAAAATGCAAAAGAAAAAGAGGTTGCTGGCGGCAAG~~
CCTCATATAACTGCTGCAGAGGGTAAACTTCAACAATGATAGTTGATCTGGATAATGTGGTCAAA
AAGGTCCAAGCAGCTCAGTCTGAGGCTAAGGTTGTATCTCAGTATCATGAGCTGGTGGTCCAAGCT
CGGGATGACTTTTAAACGAGAGCTGGACAGTATTACTCCAGAAGTCTTCTGGGTGGAAAGGAATG
AGTGTTCAGACTTAGCTGACAAGCTCTCTACTGATGATCTGAACTCCCTCATTGCTCATGCACAT
CGTCGTATTGATCAGCTGAACAGAGAGCTGGCAGAACAGAAGGCCACCGAAAAGCAGCACATCAGC
TTAGCCTTGGAGAAACAAAAGCTGGAAGAAAAGCGGGCATTGACTCTGCAGTAGCAAAAGCATT
GAACATCACAGAAGTGAAATACAGGCTGAACAGGACAGAAAGATAGAAGAAGTCAGAGATGCCATG
GAAAATGAAATGAGAACCAGCTTCGCCGACAGGCAGCTGCCACACTGATCACTTGCGAGATGTC
CTTAGGGTACAAGAACAGGAATTGAAGTCTGAATTTGAGCAGAACCTGTCTGAGAACTCTCTGAA
CAAGAATTACAATTTCTGTCGTCTCAGTCAAGAGCAAGTTGACAACCTTACTCTGGATATAAATACT
GCCTATGCCCAGACTCAGAGGAATCGAACAGGCTGTTTCAAGAGCCATGCAGTTGCTGAAGAGGAAGCC
AGAAAAGCCCACCAACTCTGGCTTTTCAAGTGGAGGCATTAAAGTACAGCATGAAGACCTCATCTGCA
GAAACACCTACTATCCCGCTGGGTAGTGCGGTTGAGGCCATCAAAGCCAACTGTTCTGATAATGAA
TTCACCCAAGCTTTAACCGCAGCTATCCCTCCAGAGTCCCTGACCCGTGGGGTGTACAGTGAAGAG
ACCCTTAGAGCCCGTTTCTATGCTGTTTCAAAAAGTGGCCCGAAGGGTAGCAATGATTGATGAAGCC
AGAAATAGCTTGTACAGTACTTCTCTCCTACCTACAGTCCCTGCTCCTATTCCACCTCAGCAA
CTGAAGCCGCCCCCAGAGCTCTGCCCTGAGGATATAAACACATTTAAATTACTGTCTATATGCTTCC
TATTGCATTGAGCATGGTGATCTGGAGCTAGCAGCAAAGTTTGTCAATCAGCTGAAGGGGGAATCC
AGACGAGTGGCAGAGGACTGGCTGAAGGAAGCCCGAATGACCCTAGAAGCAGAAACAGATAGTGGA
ATCCTGACAGCATATGCCAGCGCCGTAGGAATAGGAACCACTCAGGTGCAGCCAGAG

>HP28

CCGCCCCGACACTCTTTGCTCAAGTACGACACCCCAAGTGCTGGTGAGCCGGAACACGGAGAAACGG
AGCCCCAAGGCTCGGCTACTGAAAGTCAGCCCCCAGCAGCCTGGACCTTCAGGTTCAAGCCCCACAG
CCACCCAAGACCAAGCTCCCCTCAACTCCCTGTGTCCAGATCCTACAAAGCAGGCAGAAAGAAATC
TTGAATGCCATACTACCCCCAAGGGAGTGGGTGGAAGACACGCAGCTATGGATCCAGCAGGTGTCC
AGCACCCCTAGCACCAAGGATGGACGTGGTGACCTCCAGGAGCAGTTAGACTTAAAGCTGCAGCAG
CGGCAGGCCAGGGAAACAGGCATCTGCCCTGTCCGCAGGGAACTCTACTCACAGTGTTTTGTATGAG
TTGATCCGGGAGGTCAACCATCAACTGTGCGGAGAGGGGGCTGCTGCTGCTGCGAGTCCGGGACGAG
ATCCGCATGACCATCGCTGCCTACCAGACCCCTGTACGAGAGCAGCGTGCGGTTTGGCATGAGGAAG
GCCTGCAGGCTGAGCAGGGGAAGTCAGACATGGAGAGGAAAATCGCAGAATTGGAGACGGGAAAG
AGAGACCTGGAGAGGCAAGTGAACGAGCAGAAAGGCAAAATGTGAAGCCACTGAGAAGCGGGAGAGC
GAGAGGCGGCAGGTGGAGGAGAAGAAGCACAATGAGGAGATTCAATTCTGAAGCGAACAAATCAG
CAGCTGAAGGCCCAACTGGAAGGCATTATTGCACCAAGAAG

Figure 6 (continued)

>HSPC232

CGGCGGCGAGCGGACGGCTGCATTTACGGGGTCTCCCGGAGGGCCAGAGTCGTGGCTTACA GAAGA
GACGAAATGTGGTCTGAGGGACGATATGAATATGAAAGAATTCCGAGAGAACGAGCACCTCCTCGA
AGTCATCCCAGTGATGAATCTGGTTATAGATGGACAAGAGACGATCATTCTGCAAGCAGGC AACCT
GAATACAGGGACATGAGAGATGGCTTTAGAAGAAAAAGTTTCTACTCTTCCCATTATGCGAGAGAG
CGGTCTCCTTATAAAAGGGACAATACTTTTTTTCAGAGAATCACCTGTTGGCCGAAAGGATTCTCCA
CACAGCAGATCTGGTTCCAGTGTCACTAGCAGAAGCTACTCTCCAGAAAGGAGCAAATCATACTCT
TTCCATCAGTCTCAACATAGAAATAAAGAGAGGCCTGTCCAGTCTTTGAAAACATCAAGAGATACT
TCACCCCTCAAGTGGTTTCAGCAGTTTCTTCATCAAAGGTGTTAGACAAACCCAGTAGGCTAACTGAA
AAGGAACTTGCTGAGGCTGCAAGCAAGTGGGCTGCTGAAAAGCTAGAGAAATCAGATGAAAGTAAC
TTGCCTGAAATTTCTGAGTATGAGGCGGGATCCACAGCACCAATTGTTTACTGACCAGCCAGAGGAA
CCTGAGTCAAACACAACACATGGGATAGAATTATTTGAAGATAGTCAGCTAACCACTCGCTCTAAA
GCAATAGCATCAAAAACCAAAGAGATTGAACAGGTTTACCGACAAGACTGTGAAACTTTTCGGGATG
GTGGTGAAAATGCTGATTGAAAAAGATCCTTCATTAGAAAAGTCTATACAGTTTGCAATTGAGGCAG
AATTTACATGAAATAGGTGAGCGGTGTGTTGAAGAACTCAAGCATTTCATTGCAGAGTATGATACT
TCCACTCAAGATTTTGGAGAGCCTTTT

>HYPA

GGCCCGCGGCGGAGCAGTCTGAGCCCCGACGATGAGGCCGGGGACGGGAGCTGAGCGTGGAAGCCTC
ATGATGGGGCACCTTGGCATGCATTATGCCCCAATGGGAATGCACCCATATGGGTGAGAGAGCGAAT
ATGCCTCCTGTACCTCATGGAATGATGCCGCAGATGATGCCCCCTATGGGAGGGGCCACCAATGGGA
CAAATGCCTGGAATGATGTCGTGAGTAATGCCTGGAATGATGATGTCATATGTCCTCAGGCTTCC
ATGCAGCCTGCCTTACCGCCAGGAGTAAATAGTATGGATGTAGCAGCAGGTACAGCATCTGGTGCA
AAATCAATGTGGACTGAACATAAATCACCTGATGGAAGGACTTACTACTACAACACTGAAACCAAA
CAGTCTACCTGGGAGAAACCAGATGATCTTAAACACCTGCTGAGCAACTCTTATCTAAATGCCCC
TGGAAGGAATACAAATCAGATTCTGGAAGCCTTACTATTATAATTCTCAAACAAAAGAATCTCGC
TGGGCCAAACCTAAAGAACTTGAGGATCTTGAAGGATACCAGAATACCATTGTTGCTGGAAGTCTT
ATTACAAATCAAACCTGCATGCAATGATCAAAGCTGAAGAAAGCAGTAAGCAAGAAGAGTGCACC
ACAACATCAACAGCTCCAGTCCCTACAACAGAAATTCGACCAACAATGAGCACCATGGCTGCTGCC
GAAGCAGCAGCTGCTGTTGTTGCAGCAGCAGCAGCGGCAGCAGCAGCAGCTGCAGCCAATGCT
AATGCTTCCACTTCTGCTTCTAATACTGTGAGTGAAGTGTTCAGTTGTTCCCTGAGCCTGAAGTT
ACTTCCATTGTTGCTACTGTGTAGATAATGAGAATACAGTAAC TATTTCAACTGAGGAACAAGCA
CAACTTACTAGTACCCCTGCTATTTCAGGATCAAAGTGTGGAAGTATCCAGTAATACTGGAGAAGAA
ACATCTAAGCAAGAACTGTAGCTGATTTTACTCCCAAAAAGAAGAGGAGGAGAGCCAAACAGCA
AAGAAAACATACACTTGGAATACAAAGGAAGAGGCCAAAGCAAGCTTTTAAAGAATTATTGAAAGAA
AAGCGGGTACCATCGAATGCTTCATGGGAGCAGGCTATGAAAATGATTATTAATGATCCACGATAC
AGTGCTTTGGCAAAGTTAAGTGAAAAAAGCAAGCCTTTAATGCCTATAAAGTCCAGGCCAAAAAA
AAAGAAAAA

>HZFH

CACGCCCCGCTTCGCCGAGGCCGAGTGCCCTGGCCGAGAGCCACCAGCACCTCTCCAAGGAGTCGCTG
GCGGGGAACAAGCCGGCCAAACGCCGTCCTGCACAAGGTTCTGAACCAGCTGGAGGAGTTGCTGAGC
GACATGAAGGCGGACGTGACCCGCTGCCAGCCACGCTGTCCCGAATACCCCCCATCGCAGCCCGC
CTTCAGATGTCCGAGCGCAGCATCCTCAGCCGGCTGGCCAGCAAGGGCACGGAGCCTCACCCACA
CCGGCCTACCCGCCGGGTCCCTACGCTACACCTCCGGGGTACGGGGCGGCCTTCAGCGCCGCACCC
GTAGGGGCCCTGGCCGCCGAGGCGCCAATTACAGCCAGATGCCTGCAGGGTCTTCATCACAGCC
GCCACCAACGGCCCTCCAGTGCTTGTGAAGAAGGAGAAGGAAATGGTGGGGGCATTGGTGTGAGAC
GGGCTGGATCGGAAGGAGCCCCGAGCCGGGGAGGTGATCTGTATAGACGAC

Figure 6 (continued)

>IKAP

CTCAAAGAAGGCAGTCCGCTGGAGGACCTGGCCCTCCTGGAGGCACTGAGTGAAGTGGTGCAGAAC
ACTGAAAACCTGAAAGATGAAGTATACCATATTTTAAAGGTACTCTTTCTCTTTGAGTTTGATGAA
CAAGGAAGGGAATTACAGAAGGCCTTTGAAGATACGCTGCAGTTGATGGAAAGGTCACCTCCAGAA
ATTTGGACTCTTACTTACCAGCAGAATTCAGCTACCCCGGTTCTAGGTCCCAATTCCTACTGCAAAT
AGTATCATGGCATCTTATCAGCAACAGAAGACTTCGGTTCCTGTTCTTGATGCTGAGCTTTTATA
CCACCAAGATCAACAGAAGAACCAGTGGAAGCTGAGCCTGCTAGAC

>IMPD2

GACTTTCTCATTCTCCCTGGGTACATCGACTTCACTGCAGACCAGGTGGACCTGACTTCTGCTCTG
ACCAAGAAAATCACTCTTAAGACCCCACTGGTTTCTCTCTCCCATGGACACAGTCACAGAGGCTGGG
ATGGCCATAGCAATGGCGCTTACAGGCGGTATTGGCTTCATCCACCACAACCTGTACACCTGAATTC
CAGGCCAATGAAGTTCGGAAAGTGAAGAAATATGAACAGGGATTCAATCACAGACCCTGTGCTCCTC
AGCGGCAAGGATCGCGTGGGGATGTTTTTGAGGGCCAAGGCGCGCATGGTTTTCTGCGGTATCCCA
ATCACAGACACAGGCCGGATGGGGAGCCGCTTGGTGGGCATCATCTCTCCAGGGACATTGATTTT
CTCAAAGAGGAGGAACATGACTGTTTTCTTGGAAGAGATAATGACAAAGAGGGAAGACTTGCTGGTA
GCCCCCTGCAGGCATCACACTGAAGGAGGCAATGAAATCTGCAGCGCAGCAAGAAGGGAAAGTTG
CCCATTGTAAATGAAGATGATGAGCTTGTGGCCATCATTTGCCCGACAGACCTGAAGAAGAATCGG
GACTACCCACTAGCCTCCAAAGATGCCAAGAAACAGACTGCTGTGTGGGGCAGCCATTGGCACTCAT
GAGGATGACAAGTATAGGCTGGACTTGTCTGCGCCAGGCTGGTGTGGATGTAGTGGTTTTGACTCT
TCCCAGGGAAATTCATCTTCCAGATCAATATGATCAAGTACATCAAAGACAAATACCCCTAATCTC
CAAGTCATTGGAGGCAATGTGGTCACTGCTGCCCAGGCCAAGAACCCTCATTGATGCAGGTGTGGAT
GCCCCGCGGGTGGCATGGGAAGTGGCTCCATCTGCATTACGCAGGAAGTGTGCTGGCCTGTGGCGG
CCCCAAGCAACAGCAGTGTACAAGGTGTACAGATATGCACGGCGCTTTGGTGTTCGGGTCAATTGCT
GATGGAGGAATCCAAATGTGGGTCAATTTGCGAAAGCCTTGGCCCTTGGGGCCTCCACAGTCATG
ATGGGCTCTCTCTGGCTGCCACCACTGAGGCCCTTGGTGAATACTTCTTTTCCGATGGGATCCGG
CTAAAGAAATATCGCGGTATGGGTCTCTCGATGCCATGGACAAGCACCTCAGCAGCCAGAACAGA
TATTTCACTGAAGCTGACAAAATCAAAGTGGCCCAGGGAGTGTCTGGTGTGTGCAGGACAAAGGG
TCAATCCACAAATTTGTCCCTTACCTGATTGCTGGCATCCAACACTCATGCCAGGACATTGGTGCC
AAGAGCTTGACCCAAGTCCGAGCCATGATGTACTCTGGGGAGCTTAAGTTTGAGAAGAGAACGTCC
TCAGCCCAGGTGGAAGGTGGCGTCCATAGCCTCCATTCGTATGAGAAGCGGCTTTTC

>KPNA2

GCTTGGGCACTCACTAACATTGCTTCTGGGACATCAGAACAAACCAAGGCTGTGGTAGATGGAGGT
GCCATCCCAGCATTCAATTTCTCTGTTGGCATCTCCCCATGCTCACATCAGTGAACAAGCTGTCTGG
GCTCTAGGAAACATTGCAGGTGATGGCTCAGTGTTCGAGACTTGGTTATTAAGTACGGTGCAGTT
GACCCACTGTTGGCTCTCCTTGCACTTCTGATATGTATCTTTAGCATGTGGCTACTTACGTAAT
CTTACCTGGACACTTTCTAATCTTTGCCGCAACAAGAATCCTGCACCCCCGATAGATGCTGTTGAG
CAGATTCTTCTTACCTTAGTTCGGCTCCTGCATCATGATGATCCAGAAGTGTAGCAGATAACCTGC
TGGGCTATTTCTTACCTTACTGATGGTCCAAATGAACGAATTGGCATGGTGGTGAACAGGAGTT
GTGCCCCAACTTGTGAAGCTTCTAGGAGCTTCTGAATTGCCAATTGTGACTCCTGCCCTAAGAGCC
ATAGGGAATATTGTCACTGGTACAGATGAACAGACTCAGGTTGTGATTGATGCAGGAGCACTCGCC
GTCTTTCCAGCCTGCTCACCAACCCCAAACTAACATTGAGAAGGAAGCTACGTGGACAATGTCA
AACATCACAGCCGCGCCAGGACAGATACAGCAAGTTGTGAATCATGGATTAGTCCCATTCTCTT
GTCAGTGTCTCTCTAAGGCAGATTTTAAGACACAAAAGGAAGCTGTGTGGGCCGTGACCAACTAT
ACCAGTGGTGGACAGTTGAACAGATTGTGTACCTTGTTCAGTGTGGCATAATAGAACCCTTGATG
AACCTCTTAACTGCAAAAGATACCAAGATTATCTGGTTATCCTGGATGCCATTTCAAATATCTTT
CAGGCTGTGAGAACTAGGTGAAACTGAGAACTTAGTATAATGATTGAAGAATGTGGAGGCTTA
GACAAAATTGAAGCTCTACAAAACCATGAAAATGAGTCTGTGTATAAGGCTTCGTTAAGCTTAATT
GAGAAGTATTTCTCTGTAGAGGAAGAGGAAGATCAAAACGTTGTACCAGAACTACCTCTGAAGGC
TACACTTTCCAAGTTCAGGATGGGGCTCCTGGGACCTTTAAGCTTT

Figure 6 (continued)

>KPNB1

TTGGCAGCTGTGGGCTTAGTGGGAGACTTGTGCCGTGCCCTGCAATCCAACATCATACCTTTCTGT
GACGAGGTGATGCAGCTGCTTCTGAAAATTTGGGGAATGAGAACGTCCACAGGTCTGTGAAGCCG
CAGATTCTGTCTAGTGTGTTGGTGATATTGCCCTTGCTATTGGAGGAGAGTTTAAAAAATACTTAGAG
GTTGTATTGAATACTCTTCAGCAGGCCCTCCCAAGCCCAGGTGGACAAGTCAGACTATGACA.TGGTG
GATTATCTGAATGAGCTAAGGGAAAGCTGCTTGGGAAGCCTATACTGGAATCGTCCAGGGATTAAAG
GGGGATCAGGAGAACGTACACCCCGATGTGATGCTGGTACAACCCAGAGTAGAATTTATTC.TGTCT
TTCATTGACCACATTGCTGGAGATGAGGATCACACAGATGGAGTAGTAGCTTGTGCTGCTGGACTA
ATAGGGGACTTATGTACAGCATTGCGGAAGGATGTACTGAAATTAGTAGAAGCTAGGCCAATGATC
CATGAATTGTTAACTGAAGGGCGGAGATCGAAGACTAACAAAGCAAAAACCCCTTGCTACATGGGCA
ACAAAAGAACTGAGGAACTGAAGAACCAAGCT

>Ku70

AAGACCCGGACCTTTAATACAAGTACAGGCGGTTTGTCTTCTGCCTAGCGATACCAAGAGGTCTCAG
ATCTATGGGAGTCGTCAGATTATACTGGAGAAAGAGGAAACAGAAGAGCTAAAACGGTTTGATGAT
CCAGGTTTGATGCTCATGGGTTTCAAGCCGTTGGTACTGCTGAAGAAACACCATTACCTGAGGCCCC
TCCCTGTTCTGTACCCAGAGGAGTCGCTGGTATTGGGAGCTCAACCCTGTTCACTGCTCTGCTC
ATCAAGTGTCTGGAGAAGGAGGTTGCAGCATTTGTGCAGATACACACCCCGCAGGAACATCCCTCTCT
TATTTTGTGGCTTTTGGTGCCACAGGAAGAAGAGTTGGATGACCAGAAAATTCAGGTGACTCCTCCA
GGCTTCCAGCTGGTCTTTTACCCTTTGCTGATGATAAAAGGAAGATGCCCTTTACTGAAAAAATC
ATGGCAACTCCAGAGCAGGTGGGCAAGATGAAGGCTATCGTTGAGAAGCTTCGCTTCACATACAGA
AGTGACAGCTTTGAGAACCCCGTCTGCAGCAGCACTTCAGGAACCTGGAGGCCCTTGGCCTTGGAT
TTGATGGAGCCGGAACAAGCAGTGGACCTGACATTGCCCAAGGTTGAAGCAATGAATAAAAGACTG
GGCTCCTTGGTGGATGAGTTTAAAGGAGCTTGTTTACCACCCAGATTACAATCCTGAAGGGAAAGTT
ACCAAGAGAAAAACAGATAATGAAGGTTCTGGAAGCAAAAGGCCCAAGGTGGAGTATTCAAGAGAG
GAGCTGAAGACCCACATCAGCAAGGGTACGCTGGGCAAGTTCACTGTGCCCATGCTGAAAGAGGCC
TGCCGGGCTTACGGGCTGAAGAGTGGGCTGAAGAAGCAGGAGCTGCTGGAAGCCCTCACCAAGCAC
TTCAGGAC

>LUC7B1

GTCGACGCGGTGCGCGTTCGACGCGCGCCGCGGTTTCTGCAAAGGCAGAAAAAGTACATGAGTTAAAT
GAAAAAATAGGAAAATCCTTGCTAAAGCCGAACAGCTAGGGGCTGAAGGTAATGTGGATGAATCC
CAGAAGATTCTTATGGAAGTGGAAAAAGTTCTGTCGAAGAAAAAAGAGCTGAGGAAGAATACAGA
AATTCCATGCCTGCATCCAGTTTTCAGCAGCAAAAGCTGCGTGTCTGCGAGGTCTGTTCAAGCTAC
CTTGGTCTCCATGACAATGACCGTCTGCTGGCAGACCCTTCGCTGGTGGCAAGTTACACTTGGGGTTC
ATTGAGATCCGAGAGAAGCTTGATCAGTTGAGGAAAACTGTGCTGAAAAGCAGGAGAAGAGAAAT
CAGGATCGCTTGAGGAGGAGAGAGGAGAGGGAACGGGAGGAGCGTCTGAGCAGGAGGTCGGGATCA
AGAACCAGAGATCGCAGGAGGTCACGCTCCCGGGATCGGCGTGGAGGCGGTCAAGATCTACCTCC
CGAGAGCGACGGAAATTGTCCCGGTCCCGGTCCCGAGATAGACATCGGCGCCACCGCAGCCGTTCC
CGGAGCCACAGCCGGGGACATCGTCCGGCTTCCCGGACCGAAGTGCGAAATACAAGTTCTCCAGA
GAGCGGGCATCCAGAGAGGAGTCCTGGGAGAGCGGGCGGAGCGAGCGAGGGCCCCCGGACTGGAGG
CTTGAGAGCTCCAACGGGAAGATGGCTTCACGGAGGTCAGAAGAGAAGGAGGCCGCGGAGATC

>MAGEH1

GCATCCTTCCCTAGGACTGCTGTAAGCTTTGAGCCTCTAGCAGGAGACATGCCTCGGGGACGAAAG
AGTCGGCGCGCCGCTAATGCGAGAGCCGAGAGAGAACCGCAACAATCGCAAAATCCAGGCCTCA
GAGGCCTCCGAGACCCCTATGGCCGCTCTGTGGTAGCGAGCACCCCGAAGACGACCTGAGCGGC
CCCGAGGAAGACCCGAGCACTCCAGAGGAGGCCCTTACCACCCCTGAAGAAGCCTCGAGCACTGCC
CAAGCACAAAAGCCTTCAGTGCCCCGGAGCAATTTTCAGGGCACCAAGAAAAGTCTCCTGATGTCT
ATATTAGCGCTCATCTTCATCATGGGCAACAGCGCCAAGGAAGCTCTGCTCTGGAAGTGCTGGGG
AAGTTAGGAATGCAGCCTGGACGTGAGCACAGCATCTTTGGAGATCCGAAGAAGATCGTCAAGAA
GAGTTTGTGCGCAGAGGGTACCTGATTTATAAACCGGTGCCCGTAGCAGTCCGGTGGAGTATGAG
TTCTTCTGGGGGCCCCGAGCACACGTGGAATCGAGCAAACTGAAAGTCATGCATTTTGTGGCAAGG
GTTCTGTAACCGATGCTCTAAAGACTGGCCTTGTAAATTATGACTGGGATTCCGACCATGATGCAGAG
GTTGAGGCTATCCTCAATTCAGGTGCTAGGGGTTATTCCGCCCT

Figure 6 (continued)

>MAP11c3

CAGCGGCGGAGCTTCGCGGACCGCTGTAAGGAGGTACAGCAGATCCGCGACCAGCACCACAACAA
ATCCCGGTGATCATCGAGCGCTACAAGGGTGAGAAGCAGCTGCCCGTCCTGGACAAGACCAAGTTT
TTGGTCCCAGGACCATGTCAACATGAGCGAGTTGGTCAAGATCATCCGCGCGCGCTGCAGCTGAAC
CCCACGCAGGCCTTCTTCTGCTGGTGAACCAGCACAGCATGGTGAAGTGTGTCCACGCCCAACGCG
GACATCTACGAGCAGGAGAAAGACGAGGACGGCTTCTCTATATGGTCTACGCTCCAGGAAACC
TTCGGCTTC

>mHAP1

CCGAAAGAGCAGGTGCAGAGCGGTGCGGGAGACGGGACAGGGTCCGGGGACCCAGCAGCAGGCACC
CCCACGACCCAGCCTGCAGTTGGTCCCGCTCCGGAGCCCTCGGCGGAGCCCAAACCTGCTCCAGCG
CAGGGAACCGGGTCCGGACAATAATCAGGATCCCGAACCAAGACAGGAAGCTTTTGTCTGGTCCATG
ATCATTTGGTGAATTCGGACGCACCATGGACCCGCTACGTATTCAGGGGCTTACGGTCCCCGGGCC
ACTGGCCTGGGCATCGGAAAGGCGAGGGAATCTGGAAGACACGAGCGCGTACATCGGCGGGAGG
CCCCGGCTGTCCGGCCCTGAGCGTGCGGCGTTTATTTCGAGAGCTGCAGGAAGCGTTGTGTCTAAT
CCACCACCCACGAAGAAGATCACCGAAGATGTCAAAGTGATGTTGTATTTGCTGGAAGAGAAA
GAACGGGACCTGAACACAGCCGCCCGGATCGGCGAGTCCCTGGTGAAACAGAACAGTGTCTTGATG
GAGGAGAATAATAAGCTGGAAACCATGCTGGGCTCAGCCAGGGAGGAGATTTTACATCTCCGGAAG
CAGGTGAACCTGCGAGATGACCTTCTTCAGCTCTACTCAGACTCTGATGACGATGATGAGGAA
GACGAGGAAGACGAGGAAGAGGGCGAAGAGGAGGAACGAGAAGGACAGAGGGATCAAGACCAGCAG
CACGACCACCCCTATGGTGCCTCCAAAGCCACACCCCTAAGGCTGAGACAGCGCACCGCTGCCACAG
CTGGAACCCCTGCAGCAGAAGCTCAGGCTTCTGGAGGAAGAGAACGACCACCTGCGAGAGGAGGCC
TCCCACCTTGACAACCTGGAGGACGAAGAGCAGATGCTCATTCTGGAATGTGTGGAGCAGTTCTCT
GAAGCCAGCCAGCAGATGGCAGAGCTATCGGAAGTGCTGGTGTGAGGCTGGAAGGCTATGAGAGG
CAGCAGAAAGAGATCACTCAGCTGCAGGCCGAGATCACCAAGCTACAACAGCGTTGTAGTCTTAT
GGGGCCAGACGGAGAACTGCAGCAGATGCTGGCCTCAGAGAAGGGGATCCACTCGGAGAGCCTG
CGAGCTGGCTCCTACATGCAGGATTATGGGAGCAGGCCTCGTGACCGCCAGGAGGATGGGAAGAGT
CATCGCCAGCGCTCCTCCATGCCCCGAGGCTCTGTCACTCACTATGGATAAGTGTGCTCTGGAT
GCACTTCCAAGTTTCCAGAGACTGGCTGAGGAGCTCCGAACATCTCTGAGGAAGTTCACTACT
GACCTTGCGTATTTTCATGGAGAGACGTGACACTCACTGCAGGAGGGGCGTAAGAAGGAGCAGAGG
GCGATGCCACCCCCACCGGCTCA

>mp53

GTCACCGAGACCCCTGGGCCAGTGGCCCCCTGCCCCAGCCACTCCATGGCCCCCTGTATCTTTTGT
CCTTCTCAAAAACTTACCAGGGCAACTATGGCTTCCACCTGGGCTTCTGTCAGTCTGGGACAGCC
AAGTCTGTTATGTGCACGTACTCTCCTCCCCTCAATAAGCTATTCTGCCAGCTGGCGAAGACGTGC
CCTGTGCAGTTGTGGGTGAGCGCCACACCTCCAGCTGGGAGCCGTGTCCGCGCCATGGCCATCTAC
AAGAAGTCAAGACATGACGGAGGTCTGTGAGACGCTGCCCCCACCATGAGCGCTGCTCCGATGGT
GATGGCCTGGCTCCTCCCCAGCATCTTATCCGGGTGGAAGGAAATTTGTATCCCGAGTATCTGGAA
GACAGGCAGACTTTTCGCCACAGCGTGGTGGTACCTTATGAGCCACCCGAGGCGGCTCTGAGTAT
ACCACCATCCACTACAAGTACATGTGTAATAGCTCCTGCATGGGGGGCATGAACCGCCGACCTATC
CTTACCATCATCACTGGAAGACTCCAGTGGGAACCTTCTGGGACGGGACAGCTTTGAGGTTCTGT
GTTTGTGCTGCTGCTGGGAGAGACCGCGTACAGAAGAAGAAAATTTCCGCAAAAAGGAAGTCCTT
TGCCCTGAAGTGGCCCCAGGGAGCGCAAGAGAGCGCTGCCACCTGCACAAGCGCTCTCCCCG
CAAAAGAAAAAACCACTTGATGGAGAGTATTTACCCCTCAAGATCCGCGGGCGTAAACGCTTCGAG
ATGTTCCGGGAGCTGAATGAGGCCTTAGAGTTAAAGGATGCCCATGCTACAGAGGAGTCTGAGAC
AGCAGGGCTCACTCCAGCTACCTGAAGACCAAGAAGGGCCAGTCTACTTCCCGCCATAAAAAACA
ATGGTCAAGAAAGTGGGGCTGACTCAGAC

Figure 6 (continued)

>NAG4

CGAGACCGGGTGGAGAATGAGGCAGAAAAAGATCTCCAGTGTACGCCCCCTGTGAGATTAGACTTG
CCTCCTGAGAAGCCTCTCACAAGCTCTTTAGCCAAACAAGAGAAGTAGAACAGACACCCCTTCAA
GAAGCTTTGAATCAACTGATGAGACAATTGCAGAGAAAAGATCCAAGTGCTTTCTTTTCATTTCT
GTGACTGATTTTATTGCTCCTGGCTACTCCATGATCATTAAACACCCAATGGATTTTATGTAACCATG
AAAGAAAAGATCAAGAACAATGACTATCAGTCCATAGAAGAACTAAAGGATAACTTCAAACCTAATG
TGTACTAATGCCATGATTTACAATAAACACAGAGACCATTTATTATAAAGCTGCAAAGAAGCTGTTG
CACTCAGGAATGAAAATTCTTAGCCAGGAAAGAATTCAGAGCCTGAAGCAGAGCATAGACTTCATG
GCTGACTTGCAGAAAACCTCGAAAGCAGAAAGATGGAACAGACACCTCACAGAGTGGGGAGGACGGA
GGCTGCTGGCAGAGAGAGAGAGAGGACTCTGGAGATGCCGAAGCACACGCTTCAAGAGTCCCAGC
AAAGAAAATAAAAAGAAAGACAAAGATATGCTTGAAGATAAGTTTAAAAGCAATAATTTAGAGAGA
GAGCAGGAGCAGCTTGACCGCATCGTGAAGGAATCTGGAGGAAAGCTGACCAGGCGGCTTGTGAAC
AGTCAGTGCGAATTTGAAAGAAAGAAAACAGATGGAACAACGAGCTTGGGAGTTCTCCATCCTGTG
GATCCCATTTGTAGGAGAGCCAGGCTACTGCCCTGTGAGACTGGGAATGACAACCTGGAAGACTTCAG
TCTGGAGTGAAATACTTTGCAGGGGTTCAAAGAGGATAAAAGGAACAAAGTCACTCCAGTGTATAT
TTGAATTTATGGGCCCTACAGTTCTTATGCACCGCATTTATGACTCCACATTTGCAAATATCAGCAAG
GATGATTTCTGATTTAATCTATTCAACCTATGGGGAAGACTCTGATCTTCCAAGTGATTTGAGCATC
CATGAGTTTTTGGCCACGTGCCAAGATTATCCGTATGTGATGGCAGATAGTTTACTGGATGTTTTA
ACAAAAGGAGGGCATTTCCAGGACCCTACAAGAGATGGAGATGTCATTGCCCTGAAGATGAAGGCCAT
ACTAGGACACTTGACACAGCAAAAGAAATGGAGATTACAGAAGTAGAGCCACCAGGGCGTTTGGAC
TCCAGTACTCAAGACAGGCTCATAGCGCTGAAAGCAGTAACAAATTTTGGCGTTCCAGTTGAAGTT
TTTGACTCTGAAAGAGCTGAAATATTCCAGAAGAACTTGATGAGACCACCAGATTGCTCAGGGAA
CTCCAGGAAGCCCAGAATGAACGTTTGAGCACCAGACCCCCCTCCGAACATGATCTGTCTCTTGGGT
CCCTCATACAGAGAAATGCATCTTGCTGAACAAGTGACCAATAATCTTAAAGAACTTGACAGCAA
GTAACTCCAGGTGATATCGTAAGCACGTATGGAGTTGAAAAAGCAATGGGGATTTCCATTCCTTCC
CCCGTCATGGAAAACAACTTTGTGGATTTGACAGAAGACACTGAAGAACCCTAAAAGACGGATGTT
GCTGAGTGTGGACCTGGTGGAAAGT

Figure 6 (continued)

>NEFL

CTCTCTCCCTGTCTCTCTCTCCGGGCTCCACCGCCGCGCGGGCCGGGGAGCCACCGGCCGCC
ACCATGAGTTCTTTCAGCTACGAGCCGTACTACTCGACCTCCTACAAGCGGCGCTACGTGGAGACG
CCCCGGGTGCACATCTCCAGCGTGCAGCGGCTACAGCACCGCAGCTCAGCTTACTCCAGCTAC
TCGGCGCCGGTGTCTTCTCGCTGTCCGTGCGCCGAGCTACTCTCCAGCTCTGGATCGTTGATG
CCCAGTCTGGAGAACCCTCGACCTGAGCCAGGTAGCCGCCATCAGCAACGACCTCAAGTCCA TCCGC
ACGCAGGAGAAAGGCGCAGCTCCAGGACCTCAATGACCGCTTTCGCCAGCTTCATCGAGCGCGTGCAC
GAGCTGGAGCAGCAGAAACAAGGTCTTGAAGCCGAGCTGCTGGTGTGCTGCGCCAGAAGCACTCCGAG
CCATCCCGCTTCCGGGCGCTGTACGAGCAGGAGATCCGCGACCTGCGCCTGGCGGCGGAAGATGCC
ACCAACGAGAAGCAGGCGCTCCAGGGCGAGCGCGAAGGGCTGGAGGAGACCTGCGCAACCTGCGAG
GCGCGCTATGAAGAGCAGGTGCTGAGCCGCGAGGACGCCGAGGGCCGGCTGATGGAAGCGCGCAAA
GGCGCCGACGAGGCGCGCTCGCTCGCGCCGAGCTCGAGAAGCGCATCGACAGCTTGATGGACGAA
ATGTCTTTTGTGAAGAAAGTGCACGAAGAGGAGATCGCCGAACTGCAGGCGCAGATCCAGTACGCG
CAGATCTCCGTGGAGATGGACGTGACCAAGCCGACCTTTCCGCCGCGCTCAAGGACATCCGCGCG
CAGTACGAGAAGCTGGCCGCCAAGAACATGCAGAACGCTGAGGAATGGTTCAAGAGCCGCTTCACC
GTGCTGACCGAGAGCGCCGCCAAGAACACCGACGCCGTGCGCGCCGCCAAGGACGAGGTGTCCGAG
AGCCGTGCTCTGCTCAAGGCCAAGACCTTGAAATCGAAGCATGCCGGGGCATGAATGAAGCGCTG
GAGAAGCAGCTGCAGGAGCTGGAGGACAAGCAGAACGCCGACATCAGCGCTATGCAGGACACGATC
AACAAATTAGAAAATGAATTGAGGACCACAAAGAGTGAAATGGCAGGATACCTAAAGAAATACCAA
GACCTCCTCAACGTGAAGATGGCTTTGGATATTGAGATTGCAGCTTACAGGAAACTCTTGGAAGGC
GAGGAGACCCGACTCAGTTTCACCAGCGTGGGAAGCATAACCACTGGCTACTCCCAGAGCTCCCAG
GTCTTTGGCCGATCTGCCTACGGCGGTTTACAGACCAGCTCCTATCTGATGTCCACCCGCTCCTTC
CCGTCTTACTACACCAGCCATGTCCAAGAGGAGCAGATCGAAGTGGAGGAAACCATTGAGGCTGCC
AAGGCTGAGGAAGCCAAGGATGAGCCCCCTCTGAAGGAGAAGCCGAGGAGGAGGAGAAGGACAAG
GAAGAGGCCGAGGAAGAGGAGGAGCTGAAGAGGAAGAAGCTGCCAAGGAAGAGTCTGAAGAAGCA
AAGAAGAAGAAGAAGGAGGTGAAGGTGAAGAAGGAGAGGAAACCAAGAAGCTGAAGAGGAGGAG
AAGAAAGTTGAAGGTGCTGGGGAGGAACAAGCAGCTAAGAAGAAAGAT

>p53

ATGGAGGAGCCGCGAGTCAGATCCTAGCGTCGAGCCCCCTCTGAGTCAGGAAACATTTTCAGACCTA
TGGAAACTACTTCTGAAAACAACGTTCTGTCCCCCTTGCCGTCCCAAGCAATGGATGATTTGATG
CTGTCCCCGGACGATATTGAACAATGGTTCACTGAAGACCCAGGTCCAGATGAAGCTCCAGAAATG
CCAGAGGCTGCTCCCCCGTGGCCCCCTGCACCAGCAGCTCCTACACCGGCGGCCCCCTGCAC CAGCC
CCCTCCTGGCCCCCTGTCTCTCTGTCCCTTCCCAGAAAACCTACCAGGGCAGCTACGGTTTCCGT
CTGGGCTTCTTGCAATTCTGGGACAGCCAAGTCTGTGACTTGCACGTACTCCCCTGCCCTCAACAAG
ATGTTTTTGCCAACCTGGCCAAGACCTGCCCTGTGCAGCTGTGGGTTGATTCCACACCCCGCCGCGC
ACCCGCGTCCGCGCCATGGCCATCTACAAGCAGTCAAGCAGCATGACGGAGGTTGTGAGGCGCTGC
CCCCACCATGAGCGCTGCTCAGATAGCGATGGTCTGGCCCCCTCCTCAGCATCTTATCCGAGTGGAA
GGAAATTTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGGTGGTGCCTAT
GAGCCGCTGAGGTTGGCTCTGACTGTACCACCATCCACTACAACCTACATGTGTAACAGTTCTTGC
ATGGGCGGCATGAACCGGAGGCCATCTCACCATCATCACACTGGAAGACTCCAGTGGTAATCTA
CTGGGACGGAACAGCTTTGAGGTGCGTGTGTTGTGCTGTCTTGGGAGAGACCGGCGCACAGAGGAA
GAGAATCTCCGCAAGAAAGGGGAGCCTCACCACGAGCTGCCCCCAGGGAGCACTAAGCGAGCACTG
CCCAACAACACCAGCTCCTCTCCCCAGCCAAAGAAGAAACCACTGGATGGAGAATATTTCAACCTT
CAGATCCGTGGGCGTGAGCGCTTCGAGATGTTCGAGAGCTGAATGAGGCCTTGGAACCTCAAGGAT
GCCAGGCTGGGAAGGAGCCAGGGGGGAGCAGGGCTCACTCCAGCCACCTGAAGTCCAAAAGGGT
CAGTCTACCTCCCGCCATAAAAACTCATGTTCAAGACAGAAGGGCCTGACTCAGAC

Figure 6 (continued)

>PFN2

GCTCCTCGCCGTCCGCGCTGCAGTGCGAAGGGCTCGAAGATGGCCGGTTGGCAGAGCTACGTGGAT
AACCTGATGTGCGATGGCTGCTGCCAGGAGGCCGCCATTGTTCGGCTACTGCGACGCCAAATACGTC
TGGGCAGCCACGGCCGGGGCGTCTTTTACAGAGCATTACGCCAATAGAAATAGATATGATTGTAGGA
AAAGACCGGGAAGGTTTCTTTACCAACGGTTTGAATCTTGGCGCGAAGAAATGCTCAGTGATCAGA
GATTAGTGTATAGGTCGATGGTGAATGCGAATGGACATCCCGACADAGAGTCAAGGTGGGGAGCCA
ACATACAATGTGGCTGTTCGGCAGAGCTGGTAGAGTCTTGGTCTTTGTAATGGGAAAAGAAGGGGTC
CATGGAGGCGGATTGAATAAGAAGGCATACTCAATGGCAAATACTTGAGAGACTCTGGGTTC

>PIASy (bait)

CTGGTGGAGGCCAAAAACATGGTGATGAGTTTTTCGAGTCTCCGACCTTCAGATGCTCCTGGGTTTC
GTGGGCCCGAGTAAGAGTGGACTGAAGCACGAGCTCGTCACCAGGGCCCTCCAGCTGGTGACGTTT
GACTGTAGCCCTGAGCTGTTCAAGAAGATCAAGGAGCTGTACGAGACCCGCTACGCCAAGAAGAAC
TCGGAGCCTGCCCCACAGCCGCACCGGCCCTGGACCCCTGACCATGCACTCCACCTACGACCGG
GCCGGCGCTGTGCCCAGGACTCCGCTGGCAGGCCCAATATTGACTACCCCGTGCTCTACGGAAAG
TACTTAAACGGACTGGGACGGTTGCCCGCCAAGACCTCAAGCCAGAAGTCCGCCTGGTGAAAGCTG
CCGTTCTTTAATATGCTGATGAGCTGCTGAAGCCACCGAATTAGTCCACAGAACCAACGAGAAG
CTTCAGGAGAGCCCGTGCATCTTCGCATTGACGCCAAGACAGGTGGAGTTGATCCGGAACCTCCAGG
GAACTGCAGCCCCGAGTTAAAGCCGTGCAGGTGCTCCTGAGAATCTGTTACTCAGACACCAGCTGC
CCTCAGGAGGACCAGTACCCGCCCAACATCGCTGTGAAGGTCAACACAGCTACTGCTCCGTCCCCG
GGCTACTACCCCTCCAATAAGCCCGGGGTGGAGCCCCAAGAGGCCGTGCCGCCCATCAACCTCACT
CACCTCATGTACCTGTCTCGGCCACCAACCGCATCACTGTCACTGCGGGGAACCTACGGCAAGAGC
TACTCGGTGGCCCTGTACCTGGTGCGGCAGCTGACCTCATCGGAGCTGCTGCAGAGGCTGAAGACC
ATTGGGGTAAAGCACCCGGAGCTGTGCAAGGCACTGGTCAAGGAGAAGCTGCGCCTTGATCCTGAC
AGCGAGATCGCCACCACCGGTGTGCGGGTGTCCCTCATCTGTCCGCTGGTGAAGATGCGGCTCTCC
GTGCCCTGCCGGGCAGAGACCTGCGCCACCTGCAGTGCTTCGACGCCGTCTTCTACCTGCAGATG
AACGAGAAGAAGCCACCTGGATGTGCCCGGTGTGCGACAAGCCAGCCCCCTACGACCAGCTCATC
ATCGACGGGCTCCTCTCGAAGATCCTGAGCGAGTGTGAGGACGCCGACGAGATCGAGTACCTGGTG
GACGGCTCGTGGTGCCCGATCCGCGCCGAAAAGGAGCGCAGCTGCAGCCCGCAGGGCGCCATCCTC
GTGCTGGGCCCCCTCGGACGCCAATGGGTCTCTGCCCGCCCCCAGCGTCAACGGGAGCGGTGCCCTG
GGCAGCACGGGTGGCGGGCGGCCCGGTGGGCAGCATGGAGAATGGGAAGCCGGGCGCCGATGTGGTG
GACCTCACGCTGGACAGCTCATCGTCTCGGAGGATGAGGAGGAGGAGGAAGAGGAGGAGGAAGAC
GAGGACGAAGAGGGGCCCCCGGCCAAGCGCGCTGCCCTTCCAGAAGGGCCTGGTGCCGGCCTGC

Figure 6 (continued)

>PIAsy (prey)

CTGGTGGAGGCCAAAAACATGGTGATGAGTTTTCGAGTCTCCGACCTTCAGATGCTCCTGGGTTTC
GTGGGCCCGAGTAAGAGTGGACTGAAGCACCAGCTCTGTCACCAGGGCCCTCCAGCTGGTGCAGTTT
GACTGTAGCCCTGAGCTGTTCAAGAAGATCAAGGAGCTGTACGAGACCCGCTACGCCAAGAAGAAC
TCGGAGCCTGCCCCACAGCCGCACCCGGCCCCCTGGACCCCCCTGACCATGCACTCCACCTACGACCCG
GGGGGGGGTGTGGGAGGACTGGGCTGGCAGGCCCAATATTGACTACCCCGTGTCTTACGGAAAG
TACTTAAACGGACTGGGACGGTTGCCCGCCAAGACCTCAAGCCAGAAGTCCGCGCTGGTGAAGCTG
CCGTTCCTTAAATATGCTGGATGAGCTGCTGAAGCCCACCGAATTAGTCCCACAGAACAACGAGAAG
CTTCAGGAGAGCCCGTGCATCTTCGCATTGACGCCAAGACAGGTGGAGTTGATCCGGAACCTCAGG
GAACTGCAGCCCCGAGTTAAAGCCCGTGAGGTGCTCCTGAGAATCTGTTACTCAGACACCAGCTGC
CCTCAGGAGGACAGTACCCCGCCCAACATCGCTGTGAAGGTCAACCACAGCTACTGCTCCGTCCCCG
GGCTACTACCCCTCCAATAAGCCCCGGGGTGGAGCCCCAAGAGGCCGTGCCGCCCCCATCAACCTCACT
CACCTCATGTACCTGTCTCTGGCCACCAACCGCATCACTGTCACTGGGGGAAGTACGGCAAGAGG
TACTCGGTGGCCCTGTACCTGGTGGCGCAGCTGACCTCATCGGAGCTGCTGCAGAGGTGAAGACC
ATTGGGGTAAAGCACC CGAGCTGTGCAAGGCACTGCTCAAGGAGAAGCTGCGCCTTGATCTCTGAC
AGCGAGATCGCCACCACCGGTGTGCGGGTGTCCCTCATCTGTCCGCTGGTGAAGATGCGGCTCTCC
GTGCCCTGCCGGCAGAGACCTGCGCCACCTGCAGTGTCTTCGACGCGCTCTTCTACCTGCAGATG
AACGAGAAGAAGCCCACCTGGATGTGCCCCGTGTGCGACAAGCCAGCCCCCTACGACCAGCTCATC
ATCGACGGGCTCCTCTCGAAGATCCTGAGCGAGTGTGAGGACGCGACGAGATCGAGTACCTGGTG
GACGGCTCGTGGTGCCCGATCCGCGCCGAAAAGGAGCGCAGCTGCAGCCCGCAGGGCGCCATCCTC
GTGCTGGGCCCCCTCGGACGCCAATGGGCTCCTGCCCGCCCCCAGCGTCAACGGGAGCGGTGCCCTG
GGCAGCACGGGTGGCGGCGGCCCGGTGGGCAGCATGGAGAATGGGAAGCCGGCGCGCGATGTGGTG
GACCTCACGCTGGACAGCTCATGCTCCTCGGAGGATGAGGAGGAGGAGGAAGAGGAGGAGGAAGAC
GAGGACGAAGAGGGGCCCCCGGCCAAGCGCGCTGCCCTTCCAGAAGGGCCTGGTGCCGGCCTGC
>PLIP
GGGAGATAATCGAGGGCTGCCGCTACCCGTGCTGCGGGGAACCAGGACAACGAAGATGAGTGG
CCCCTGGCCGAGATCCTGAGCGTGAAGGACATCAGTGGCCGGAAGCTTTTCTACGTCCATTACATT
GACTTCAACAAACGTCTGGATGAATGGGTGACGCATGACCGGCTGGACCTAAAGAAGATCCAGTTT
CCCAAGAAAGAGGCCAAGACCCCCACTAAGAACCGACTTCTCGGTCCCGTCTGGCTCTCCAGAG
AGAGAGGTGAAACGGAAGGTGGAGGTGGTTTACCAGCAACTCCAGTGCCCGAGCGAGACAGCCCCG
GCCTCGGTTTTTCCCCAGAATGGAGCCGCCCGTAGGGCAGTGGCAGCCCAGCCAGGACGGAAGCGA
AAATCGAATTGTTTGGGCACTGATGAGGACTCCAGGACAGCTCTGATGGAAATACCGTCAGCACCA
CGCATGACTGGCAGCCTGGTGTCTGATCGAAGCCACGACGACATCGTCACCCGGATGAAGAACATT
GAGTGCATTGAGCTGGGCGGCAACCGCTCAAGCCGTGGTACTTCTCCCCGTACCCACAGGAACTC
ACCACATTGCCTGTCTCTACCTGTGCGAGTTCTGCCTCAAGTACGGCCGTAGTCTCAAGTGTCTT
CAGCGTCATTTGACCAAGTGTGACCTACGACATCCTCCAGGCAATGAGATTTACCGCAAGGGCACC
ATCTCCTTCTTTGAGATTGATGGACGTAAGAACAAGAGTTATTTCCAGAACCTGTGTCTTTTGGCC
AAGTGTTCCTTGACCATAAGACACTGTACTATGACACAGACCCTTCTCTTCTACGTCTATGACA
GAGTATGACTGTAAGGGCTTCCACATCGTGGGCTACTTCTCCAAGGAGAAAGAATCAACGGAAGAC
TACAATGTGGCCTGCATCCTAACCTGCCCTACCAGCGCCGGGGCTACGGCAAGCTGCTGATC
GAGTTCAGCTATGAACTCTCCAAGTGGAGGGGAAAACAGGGACCCCTGAGAAGCCCCCTCTCAGAC
CTTGGCCTCCTATCCTATCGAAGCTACTGGTCCCAGACCATCCTGGAGATCCTGATGGGGCTGAAG
TCGGAGAGCGGGGAGAGGCCACAGATCACCATCAATGATGAGATTAGTGAAATCACCAGCATCAAGAAG
GAGGATGTCTCTCACTCTGCAGTACCTCAATCTCATCACTACTACAAGGGCCAGTACATCCTC
ACACTGTGAGAGGACATCGTGGATGGCCATGAGCGGGCCATGCTCAAGCGGCTCCTGCGGATCGAC
TCCAAGTGTCTGCACTTCACTCCCAAGGACTGGAGCAAGAGGGGGAAGTGG

Figure 6 (continued)

>PTN

TTGAGTCAAAGGCAGGATCAGGTTCCCCGCCCTTCCAGTCCAAAAATCCCGCCAAGAGAGCCCCAGA
GCAGAGGAAAATCCAAAGTGGAGAGAGGGGAAGAAAGAGACCAGTGAGTCATCCGTCCAGAAGGCG
GGGAGAGCAGCAGCGGCCCAAGCAGGAGCTGCAGCCAGCCGGGTACCTGGACTCAGCGGTAGCAAC
CTCGCCCTTGCACAAAGGCAGACTGAGCGCCAGAGAGGACGTTTCCAACCTCAAAAATGCAGGCT
CACAGTAGGAGGAGGAGCGTGGAAAATTTGCAGCTGCCTTCTTGGCATTCATTTTTCATACCTGGCA
GCTGTGGATACTGCTGAAGCAGGGAAGAAAGAGAAACCAGAAAAAAAAGTGAAAGAGTCTGACTGT
GGAGAATGGCAGTGGAGTGTGTGTGTGCCACCACTGGAGACTGTGGGCTGGGCACACGGGAGGGC
ACTCGGACTGGAGCTGAGTGCAAGCAAACCATGAAGACCCAGAGATGTAAGATCCCCTGCAACTGG
AAGAAGCAATTTGGCGCGGAGTGCAAATACCAGTTCCAGGCCTGGGGAGAATGTGACCTGAACACA
GCCCTGAAGACCAGAACTGGAAGTCTGAAGCGAGCCCTGCACAATGCCGAATGCCAGAAGACTGTC
ACCATCTCCAAGCCCTGTGGCAAACCTGACCAAGCCCAAACCTCAAGCAGAATCTAAGAAGAAGAAA
AAGGAAGGCAAGAAACAGGAGAAGATGCTGGAT

>PTPK

AGTAACTACATCAATGCTGCTCTTATGGACAGCTACAGGCAACCAGCTGCTTTTCATCGTCACACAA
TACCCTCTGCCAAACACTGTAAAGACTTCTGGAGATTAGTGTATGATTATGGCTGTACCTCCATT
GTGATGTTAAACGAAGTCGACTTGTCCCAGGGCTGCCCTCAGTACTGGCCAGAGGAAGGGATGCTA
CGATATGGCCCCATCCAAGTGGAATGTATGTTCTTCAATGGACTGTGATGTGATCAACCGGATT
TTTAGGATATGCAATCTAAACAGACCACAGGAAGGTTATCTGATGGTGCAACAGTTTCAGTACCTA
GGATGGGCTTCTCATCGAGAAGTGCCTGGATCCAAAAGGTCATTCTTGAAACTGATACTTCAGGTG
GAAAAGTGGCAGGAGGAATGCCAGGAAGGGGAAGGCCGGACGATTATCCACTGCCCTAAATGGTGGC
GGGCGAAGTGGCATGTTCTGTGCTATAGGCATCGTTGTTGAAATGGTGAAACGGCAAAATGTTGTC
GATGTTTTCCATGCAGTAAAGACACTGAGGAACAGCAAGCCAAACATGGTGGAAGCCCCGGAGCAA
TACCGTTTTCTGCTATGATGTAGCTTTGGAGTACCTGGAATCATCT

>SETBD1

AAGGCCTCCACCTCAGGACTAGGCATCAAGGATGAGGGAGACATCAAACAGGCCAAGAAAGAGGAC
ACTGACGACCGAAACAAGATGTCAGTAGTTACTGAAAGCTCTCGAAATTACGGTTACAATCCTTCT
CCTGTGAAGCCTGAAGGACTTCGCCGCCACCTAGTAAGACTAGTATGCATCAAAGCCGAAGACTC
ATGGCTTCTGCTCAGTCCAACCCTGATGATGTCTTGACACTGTCCAGCAGCACAGAAAGTGAGGGG
GAAAGTGGGACCAGCCGAAAGCCCACTGCTGGTCAGACTTCGGCTACAGCGGTTGACAGTGATGAT
ATCCAGACCATATCCTCTGGCTCTGAAGGGGATGACTTTGAGGACAAGAAGAACATGACTGGTCCA
ATGAAGCGTCAAGTGGCAGTAAATCAACCCGAGGCTTTGCTCTTAAATCAACCCATGGGATTGCA
ATTAAATCAACCAACATGGCCTCTGTGGACAAGGGGGAGAGCGCACCTGTTGTAAGAACACACGC
CAATTCTATGATGGCGAGGAGTCTTGCTACATCATTGATGCCAAGCTTGAAGGCAACCTGGGCCGC
TACCTCAACCAAGTTGCAGCCCCAACCTGTTTGTCCAGAATGTCTTCGTGGATACCCATGATCTT
CGCTTCCCCTGGGTGGCCTTCTTTGCCAGCAAAAGAATCCGGGCTGGGACAGAACTTACTTGGGAC
TACAACTACGAGGTGGGCAGTGTGGAAGGCAAGGAGCTACTCTGTTGCTGTGGGGCCATTGAATGC
AGAGGACGTCTTCTT

Figure 6 (continued)

>SH3 GL3

GTGGCCGGGCTGAAGAAGCAGTTCCACAAAGCCAGCCAGCTATTTAGTGAAAAAATAAGTGGTGCT
GAAAGCACTAACTAGACCATGAATTTCTTGACATGGAAAGGAAATAGATGTTACCAATAAAGTT
GTTGCAGAAATTTCTTTCAAAAACCACTGAATACTTTAGCCAAATCCAGCATACAGAGCTAAGCTA
GGAATGCTGAACACTGTGTGCGAAGATCCGAGGGCAGGTGAAGACCACAGGATACCCGCAGACGGAA
GGGTTGGTGGGGCAGTCTATGCTGAAATAACGGGAAGGAGCTCGGGGAAGACTCCACCTTTTGCAAT
GCATTGATAGAAGTTGGTGAATCCATGAAGCTAATGGCTGAGGTGAAAGACTCTCTTGATAATTAAT
GTAAAGCAAACCTTTTATTGATCCACTTCAGTTACTACAAGATAAAGATTTAAAAGAGATCGGCGCAT
CACCTGAAAAAGCTGGAAGGCCGCCGCTGGATTACGATTATAAAAAGAAACGAGTAGGTAAGATA
CCAGACGAAAGAAGTCAGACAAGCCGTAGAAAATTTGAAGAGTCAAAGGAGTTGGCTGAAAGAAGC
ATGTTTAACTTTTGTAGAAAATGATGTAGAACAAAGTCAGCCAGTTGGCTGTGTTTATAGAGGCAGCA
TTAGACTATCACAACAGTCCACAGAGATTCTGCAGGAGCTGCAGAGCAAGCTACAGATGCCAATA
TCAGCTGCATGCACTGTGCGGAGAGGAGAAATCAAGGCCAAGGCCCTGTGAAAAGGAGTTGTAGTGAG
CTCAATGGAGTTTCCACCACCTCTGTAGTGAAGACGACAGGTTCTAACATTCCCATGGACCAGCCC
TGCTGTCGTGGTCTCTATGACTTTGAGCCAGAAAACCAAGGAGAATTAGGATTTAAAGAAGGGGAC
ATCATTACATTAACCAATCAAATAGATGAAAACCTGGTATGAAGGAATGATACACGGAGAATCGGGA
TTCTTCCCCATTAAATTACGTGGAAGTGATCGTGCCCTTTACCTCAG

>SUMO-2

CGGCCCCGCGCACAGTTGCGGCGGGAGAGCGGCGGGCCGAGAGCGTGACTCGCCCCGCTCCGCGCT
GCTTCCCCCGCGCGCCCTCCCCGCGCGCTCGCGCAGCCATGTCCGAGGAGAAGCCCAAGGAGGGT
GTGAAGACAGAGAATGACCACATCAACCTGAAGGTGCGCGGCGAGGACCGCTCCGTGGTGCAGTTT
AAGATCAAGAGCCACACGCCGCTGAGCAAGCTGATGAAGGCCCTACTCGAGAGGCAGGGCTTGTCA
ATGAGGCAGATCAGATTTCAGGTTCCGACGGGCAGCCAATCAATGAAACTGACACTCCAGCACAGCTG
GAGATGGAGGACGAGGACACCATCGACGTGTTCCAGCAGCAGACGGGAGGTGTGCCGGAGAGCAGC
CTGGCAGGGCACAGTTTC

>SUMO-3

CCCTCGTCCACCGCTGCGCGCTCCTTCTCTGCGCTCCTGGTGCTGCTTGTGTGCTCGTTTGGTG
CGGACCTGGTAAGCTCTTTTGTGAAGCGGCAGCTGAGGAGACTCCGGCGCTCGCCATGGCCGACGAA
AAGCCCAAGGAAGGAGTCAAGACTGAGAACAACGATCATATTAATTTGAAGGTGGCGGGGAGGAT
GGTTCGTGTGTCAGTTTAAGATTAAAGAGGCATACACCATTAGTAAACTAATGAAAGCCATTGT
GAACGACAGGGATTGTCAATGAGGCAGATCAGATTCCGATTTGACCGGCAACCAATCAATGAAACA
GACACACCTGCACAGTTGGAAATGGAGGATGAAGATACAATTGATGTGTTCCAACAGCAGACGGGA
GGTGTCTAC

>TALL

AGCTCACCCGTGAAGCGTCAGAGGATGGAGTCGCGCTGGACCAGCTCAAGCACTTCACCACCGTG
GTGGCCGACACGGGCGACTTCCACGCCATCGACGAGTACAAGCCCCAGGATGCTACCACCAACCCG
TCCCTGATCCTGGCCGCGAGCACAGATGCCCGCTTAACAGGAGCTGGTGGAGGAGGCGATTGCCAT
GGCCGGAAGCTGGGCGGGTCACAAGAGGACCAGATTAAAAATGCTATTGATAAACTTTTGTGTTG
TTTGATAAAGATGCCATGGTGGCCAGAGCCAGGCGGCTCATCGAGCTCTACAAGGAAGCTGGGATC
AGCAAGGACCGAATTCTTATAAAGCTGTCTAACCTGGGAAGGAATTGAGGCTGGAAAGCAGCTC
GAGGAGCAGCACGGCATCCACTGCAACATGACGTTACTCTTCTCCTTCGCCCAGGCTGTGGCGCTGT
GCCGAGGCGGGTGTGACCCCTCATCTCCCCATTTGTTGGGCGCATCCTTGATTGGCATGTGGCAAC
ACCGACAAGAAATCCTATGAGCCCCCTGGAAAGACCCTGGGGTAAAGAGTGTCACTAAAATCTACAAC
TACTACAAGAAAGTTTAGCTACAAAACCATTTGTATGGGCGGCTCCTTCCGCAACACGGGCGAGATC
AAAGCACTGGCCGGCTGTGACTTCTCACCATCTCACCCAAGCTCCTGGGAGAGCTGCTGCAGGAC
AACGCCAAGCTGGTGGCTGTGCTCAGGCCAAGGGGGCCCAAGCCAGTGACCTGGAAAAATCCAG
CTGGATGAGAAGTCTTTCCGTTGGTTGCACAACGAGGACCAAGATGGCTGTGGAGAAGCTCTCTGAC
GGGATCCGCAAGTTTGGCGCTGATGCAAGCTGGAGCGGATGCTGACAGAACGAATGTTCAAT
GCAGAGAATGGAAAG

Figure 6 (continued)

>TCPG

CAGACTGACATTGAGATTACACGAGAGGAGGACTTCACCCGAATTCTCCAGATGGAGGAAGAGTAC
ATCCAGCAGCTCTGTGAGGACATTATCCAAGTGAAGCCCGATGTGGTCATCACTGAAAAGGGCATC
TCAGATTTAGCTCAGCACTACCTTATGCGGGCCAATATCACAGCCATCCGCAGAGTCCGGAAGACA
GACAATAATCGCATTGCTAGAGCCTGTGGGGCCCGGATAGTCAGCCGACCAGAGGAACCTGAGAGAA
GATGATGTTGGAAACAGGAGCAGGCCTGTTGGAAATCAAGAAAATTGGAGATGAATACTTTTACTTTG
ATCACTGACTGCAAAGACCCCAAGGCCTGCACCATTTCTCTCCGGGGGGCTAGCAAAGAGATTCTC
TCGGAAGTAGAACGCAACCTCCAGGATGCCATGCAAGTGTGTGCGCAATGTTCTCTGGACCCTCAG
CTGGTGCCAGGGGGTGGGGCCTCCGAGATGGCTGTGGCCCATGCCCTTGACAGAAAAATCCAAGGCC
ATGACTGGTGTGGAACAATGGCCATACAGGGCTGTTGCCAGGCCCTAGAGGTCATTCTCTCGTACC
CTGATCCAGAAGTGTGGGGCCAGCACCATCCGTCTACTTACCTCCCTTCGGGGCCAAGCACACCCAG
GAGAACTGTGAGACCTGGGGTGTAAATGGTGAGACGGGTACTTTGGTGGACATGAAGGAACTGGGC
ATATGGGAGCCATTGGCTGTGAAGCTGCAGACTTATAAGACAGCAGTGGAGACGGCAGTTCTGCTA
CTGCGAATTGATGACATCGTTTCAGGCCACAAAAGAAAGGCGATGACCAGAGCCGGCAAGGCGGG
GCTCCTGATGCTGGCCAGGAG

>VIM

TCCCCGCGCCAGAGACGCGAGCCGCGCTCCACCACCCACACCCACCGCGCCCTCGTTCCGCTCTTC
TCCGGGAGCCAGTCCGCGCCACCGCCGCGCCAGGCCATCGCCACCCTCCGCAGCCATGTCCACC
AGGTCCGTGTCTCTCGTCTCTTACCAGCAGGATGTTTCGGCGGCCCGGGCACC CGAGCCGGCCGAGC
TCCAGCCGGAGCTACGTGACTACGTCCACCCGCGACCTACAGCCTGGGCAAGCGCGCTGCGCCAGC
ACCAGCCGCGAGCCTCTACGCCTCGTCCCCGGGGGGCGTGTATGCCACGCGCTCCTCTGCGGTGCGC
CTGCGGAGCAGCGTCCCCGGGGTGGCGCTCCTGCAGGACTCGGTGGACTTCTCGCTGGCCGACGCC
ATCAACACCGAGTTCAAGAACACCCGCGACCAACGAGAAGGTGGAGCTGCAGGAGCTGAATGACCGC
TTCGCCAAGTACATCGACAAGGTGCGCTTCTTGAGCAGCAGAGAATAAGATCCTGCTGGCCGAGCTC
GAGCAGCTCAAGGGCCCAAGGCAAGTCGCGCTTGGGGGACCTCTACGAGGAGGAGATGCGGGAGCTG
CGCCGGCAGGTGGACCAGCTAACCAACGACAAAGCCCGCGTTCGAGGTGGAGCGCGACAACCTGGCC
GAGGACATCATGCGCCTCCGGGAGAAATTGCAGGAGGAGATGCTTCAGAGAGAGGAAGCCGAAAAC
ACCCTGCAATCTTTTCAAGACAGGATGTTGACAATGCGTCTCTGGCACGTCTTGACCTTGAAAGCAAA
GTGGAATCTTTGCAAGAAGAGATTGCCCTTTTGAAGAACTCCACGAAGAGGAAATCCAGGAGCTG
CAGGCTCAGATTACAGGAACAGCATGTCCAAATCGATGTGGATGTTTCCAAGCCTGACCTCACGGCT
GCCCTGCGTGACGTACGTACGCAATATGAAAGTGTGGCTGCCAAGAACCTGCAGGAGGCAGAAAGAA
TGGTACAAATCCAAGTTTGTGACCTCTCTGAGGCTGCCAACCGGAACAATGACGCCCTGCGCCAG
GCAAAGCAGGAGTCCACTGAGTACCGGAGACAGGTGCAGTCCCTCACCTGTGAAGTGGATGCCCTT
AAAGGAACCAATGAGTCCCTGGAACGCCAGATGCGTGAAATGGAAGAGAACTTTGCCGTTGAAGCT
GCTAACTACCAAGACACTATTGGCCGCTGCAGGATGAGATTGAGAATATGAAGGAGGAAATGGCT
CGTCACCTTCGTGAATACCAAGACCTGCTCAATGTTAAGATGGCCCTTGACATTGAGATTGCCACC
TACAGGAAGCTGCTGGAAGGCGAGGAGAGCAGGATTTCTCTGCCTCTTCCAAACTTTTCTCTCTG
AACCTGAGGGGAACTAATCTGGATTCACTCCCTCTGGTTGATACCACTCAAAAAGGACACTTCTG
ATTAAGACGGTTGAAACTAGAGATGGACAGGTTATCAACGAACTTCTCAGCATCACGATGACCTT
GAA

Figure 6 (continued)

>VIMc

CAGGAGGAGATGCTTCAGAGAGAGGAAGCCGAAAACACCCTGCAATCTTTTCAGACAGGATGTTGAC
AATGCGTCTCTGGCACGTCTTGACCTTGAACGCAAAGTGGAAATCTTTGCAAGAAGAGATTGCCTTT
TTGAAGAACTCCACGAAGAGGAAATCCAGGAGCTGCAGGCTCAGATTAGGAACAGCATGTCCAA
ATCGATGTGGATGTTTCCAAGCCTGACCTCACGGCTGCCCTGCGTGACGTACGTACGCAATATGAA
AGTGTGGCTGCCAAGAACCTGCAGGAGGCAGAGAATGGTACAAATCCAAGTTTGCTGACCTCTCT
GAGGCTGCCAACCGGAACAAATGACGCCCTGCGCCAGGCAAAAGCAGGAGTCCACTGAGTACCGGAGA
CAGGTGCAGTCCCTCACCTGTGAAGTGGATGCCCTTAAAGGAACCAATGAGTCCCTGGAACGCCAG
ATGCGTGAAATGGAAGAGAACTTTGCCGTTGAAGCTGCTAACTACCAAGACACTATTGGCCGCCTG
CAGGATGAGATTGAGAATATGAAGGAGGAAATGGCTCGTCACCTTCGTGAATACCAAGACCTGCTC
AATGTTAAGATGGCCCTTGACATTGAGATTGCCACCTACAGGAAGCTGCTGGAAGGCGAGGAGAGC
AGGATTTCTCTGCTCTTCCAACTTTTCTCCCTGAACCTGAGGGAACTAATCTGGATTCACTC
CCTCTGGTTGATACCCACTCAAAAAGGACACTTCTGATTAGACGGTTGAAACTAGAGATGGACAG
GTTATCAACGAACTTCTCAGCATCACGATGACCTTGAA

>ZHX1

GAACAAACAATAAATGATCTGACTTTTGATGGTAGTTTTGTTAAAGAGGAGAATGCAGAGCAAGCA
GAATCTACAGAAGTTTCTTCTTCGGGAATATCTATCAGTAAAACTCCTATCATGAAAATGATGAAA
AATAAGTGGAAAATAAACGGATTGCAGTTTATCATAACTCAGTTGAGGACGTTCTGAAAGAGAAA
GAGAATGAAATCAAACCAGACCGTGAAGAAATTGTAGAAAATCCAAGTTCTTCAGCTTCTGAATCT
AATACAAGTACTTCCATTGTAAACAGAATACATCCAAGTACTGCCAGCACGGTAGTGACACCAGCA
GCAGTTCTTCTGATTGGCACAGGTGATAACTGCTGTATCTGCTCAGCAGAATTCTAATTTGATT
CCCAAAGTCTTAATCCCTGTAAATAGCATTCCCACCTACAATGCTGCATTGGATAACAATCCCCTT
TTACTTAACACCTACAACAAGTTCCCTTACCCAACAATGTGAGAAATTACAGTTCTTTCTGCTCAA
GCAAAATATACAGAGGAACAGATCAAGATATGGTTTTAGCCCAACGTTTAAACATGGTGTGTAGT
TGGACTCCCGAGGAAGTAGAGGAGGCAAGAAGGAAACAATTCAATGGAACAGTGCATACTGTACCT
CAGACCATAACTGTTATTCCTACACACATTTCCACAGGGAGTAATGGTTTACCATCTATTTTACAG
ACATGCCAAATAGTTGGTCAGCCTGGTCTGGTCTTACTCAAGTGGCTGGAACAAACACCTTGCCA
GTTACAGCACCTATAGCCTTGACAGTGGCAGGCGTTCCAAGTCAAAATAATATACAGAAAAGTCAG
GTACCTGCTGCTCAGCCTACTGCAGAAACAAAGCCAGCAACAGCAGCAGTTCCAACCTTCTCAAAGT
GTCAAACATGAACTGCATTGGTAAACCCCTGATTCAATTTGGCATTTCGGGCAAAAAGACAAAAGAG
CAACTGGCAGAAATTAAGGTTAGCTACCTTAAAAATCAGTTTCCCATGATTTCAGAAATTATCAGA
CTTATGAAAATAACAGGCTGACGAAAGGAGAGATTAAAAATGGTTTAGTGACACAAGGTACAAC
CAGAGAAATTCAAAGAGTAATCAGTGCTTACATCTCAACAATGATTCTCTACCACCATTATTATA
GACTCCAGTGATGAAACCACGGAATCCCCAACTGTTGGTACTGCACAGCCTAAGCAATCTTGGAAAT
CCTTTTCTGACTTTTACTCCCCAAAAGTTTAAAGAGAAAACCTGCAGAGCAGCTTCGTGTCCTTCAG
GCAAGTTTTCTCAACAGCTCTGTACTTACAGATGAAGAATTAAATAGGTTAAGGGCACAAACCAA
CTTACCAGAAGAGAAATCGATGCTTGGTTTACAGAGAAGAAGAAATCAAAGCTTTAAAGGAAGAG
AAAATGGAAATAGATGAAAGTAATGCAGGTAGTTCCAAGAAGAAGCTGGAGAAACTTCTCCTGCA
GATGAATCTGGTGCACCTAAGTCAGGGAGTACAGGCAAGATATGTAAAAAACACCTGAGCAGCTG
CACATGCTTAAGAGTGCAATTTGTCCGGACACAGTGGCCATCACCAGAAGAGTATGACAAGTTGGCC
AAAGAAAGCGGGCTTGCTAGAACAGACATAGTTAGTTGGTTTGGGGACACCCGTTATGCTTGGAG
AATGGAACTTGAAATGGTACTACTATCAGAGCGCCAATTCAAGTAGTATGAATGGTCTGTCT
TCCCTTAGGAAAAGAGGGAGAGGCCAAAGGACGGGGAAGAGGAAGACCGCGTGGGCGGCCT
AGAGGAAGCAAAGAATTAACAACCTGGGACAGGGGACCATCACTCATAAAATTTAAACTGGAAT
GCAATACTTAAGGATTATTACCTGAAGCACAAGTTTCTTAATGAGCAAGACCTTGATGAACTTGTT
AACAAATCACATATGGGCTATGAGCAGGTGAGAGAGTGGTTTGCAGAAAGACAGAGAAGATCAGAA
TTAGGTATAGAATTATTTGAGGAAAATGAGGAGGAAGATGAAGTTATTGATGACCAGGAAGAGGAT
GAAGAAGAAACAGATGATAGTGACACTTGGGAACCTCCACGACATGTGAAACGGAAGCTGTCTAAA
TCAGATGAC

Figure 6 (continued)

>ZNF33B

TGTTATGAATGTGGGAAAACCTTCTGCTTGAAGTCAGACCTCACAATACATCAGAGAACGCACACA
GGGGAGAAACCCCTTTGCATGTCCTGAATGTGGGAAATTCTTTAGCCATAAGTCAACCCCTCTCTCAA
CATTATAGAACACACACGGGGGAGAAACCCTATGAATGTCATGAATGTGGAAAAATCTTTTACAAT
AAATCATAACCTAACAAAACATAATAGAACACATACAGGGGAGAAACCCTATGAATGTAATGAATGT
GGAAAAACCTTCTGCGCAGAAGTCACAACCTCACTCAGCATCAGAGAATTACATAGGGGAGAAACCC
TATGAATGTAATGAGTGTGGAAAAGCTTTCTGCCATAAGTCAGCTCTAATTGTACATCAGAGAAAC
CATACACAAGAAAAGCCTTATAAATGTAACGAATGTGGAAAATCTTTCTGTGTGAAGTCAGGACTT
ATTTTACATGAGAGAAAGCACACGGGGGAGAAACCCTATGAATGCAATGAATGTGGGAAATCCTTC
AGTCACAAATCATCACTCACAGTACATTACAGGGCTCACACAGGAGAGAAATCTTGTCAGTGTAAAT
GAATGTGGAAAAATCTTTTACCGTAAATCAGACCTTGCTAAACATCAGAGATCACATACAGGGGAA
AAGCCCTATGAATGTAACACATGCAGGAAAACCTTCTCTCAAAGTCAAATCTCATTGTACATCAG
AGAACACACATAGGAGAAAAACCTTATGAA

Figure 6 (continued)

Nucleotide sequence data (fasta format)

>GDF9

CACAGCTGGTATTCCCTTCACTATAAAAGGAGGCGCTTCCAGGGTCTGACCAGGAGAGAACTGTGTCTGCCTAT
CCTGTGGGAGAAGAGGCTGCTGAGGATGGGAGATCTTCCCATCACCGTCACCGCAGAGGTGAGGAACTGTGAGT
TCTGAATTGAAGAAGCCCTTGGGCCCAGCTTCCTTCAATCTGAGTGAATACTTCAGACAATTTCTTCTTCCCCAA
AATGAGTGTGAGCTCCATGACTTTAGACTTAGCTTTAGTCAGCTGAAGTGGGACAACCTGGATTGTGGCTCCGCAC
AGGTACAACCCTCGATACTGTAAAGGGGACTGTCCAAGGGCAGTTGGACATCGGTATGGCTCTCCAGTTCACACC
ATGGTACAGAACATCATCTATGAGAAGCTGGACTCCTCAGTGCCAAGACCGTCATGTGTACCTGCCAAATACAGC
CCCTTGAGTGTGTTTGACCATTGAGCCCGATGGCTCAATTGCCTATAAAGAGTACGAAGATATGATAGCTACAAAG
TGCACCTGTCTGT

>GAPD

CCTGTTTCGACAGTCAGCCGCATCTTCTTTTGGCTCGCCAGCCGAGCCAATCGCTCAGACACCATGGGGAAGGTG
AAGGTCGGAGTCAACGGATTTGGTCGTATTGGGCGCCTGGTCACCAGGGCTGCTTTTAACTCTGGTAAGTGGAT
ATTGTTGCCATCAATGACCCCTTCATTGACCTCAACTACATGGTTTACATGTTCCAATATGATTCACCCATGGC
AAATTCCATGGCACCCTCAAGGCTGAGAACGGGAAGCTTGTCTATCAATGGAAATCCCATCACCATCTTCCAGGAG
CGAGATCCCTCCAAATCAAGTGGGCGATGCTGGCGCTGAGTACGTGCTGGAGTCCACTGGCGTCTTCCACCACC
ATGGAGAAGGCTGGGGCTCATTTGCAGGGGGGAGCCAAAAGGGTCAATCATCTCTGCCCCCTCTGCTGATGCCCCC
ATGTTTCGTATGGGTGTGAACCATGAGAAGTATGACAACAGCCTCAAGATCATCAGCAATGCCCTCTGCACCACC
AACTGCTTAGCACCCCTGGCCAAGGTCATCCATGACAACCTTTGGTATCGTGGAAGGACTCATGACCACAGTCCAT
GCCATCACTGCCACCCAGAAGACTGTGGATGGCCCCCTCCGGGAAACTGTGGCGTGATGGCCGCGGCTCTCCAG
AACATCATCCCTGCCTCTACTGGCGCTGCCAAGGCTGTGGGCAAGGTCATCCCTGAGCTGAACGGGAAGCTCAGT
GGCATGGCCTTCCGTGTCCCCACTGCCAACGTTGTCAGTGGTGGACCTGACCTGCCGTCTAGAAAAACCTGCCAAA
TATGATGACATCAAGAAGGTGGTGAAGCAGGCGTCCGAGGGGCCCTCAAGGGCATCCTGGGCTACACTGAGCAC
CAGGTGGTCTCCTCTGACTTCAACAGCGACACCCACTCCTCCACCTTTGACGCTGGGGCTGGCATTGCCCTCAAC
GACCACTTTGTCAAGCTCATTTTCTGGTATGACAACGAATTTGGCTACAGCAACAGGGTGGTGGACCTCATGGCC
CACATGGCCTCCAAGGAG

>MOV34

GCGGCGGGCGGGCGGGCGGGCTGCAGCTACGAACGGGACCGGAGGAAGCAGCGGGATGGAGGTGGATGCAGCAGTA
GTCCCAGCGTGATGGCCTGCGGAGTGACTGGGAGTGTTCCTGCTCTCCATCCCTTGTCTATTCTCAACATC
TCAGACGACTGGATCCGCATGCGCTCCCAGGAGGGGCGGCTGTGCAGGTGATTGGGGCTCTGATTGGCAAGCAG
GAGGGCCGAAATATCGAGGTGATGAACCTCCTTTGAGCTGCTGTCCACACCTGTGAAGAGAAGATTATCATTTGAC
AAGGAATATATTACACCAAGGAGGAGCAGTTTAAACAGGTGTTCAAGGAGCTGGAGTTTCTGGGTTGGTATACC
ACAGGGGGGCCACCTGACCCCTCGGACATCCAAGTCCATAAGCAGGTGTGTGAGATCATCGAGAGCCCCCTCTTT
CTGAAGTTGAACCCTATGACCAAGCACACAGATGCCAATGCTGTTTGGCTGAGCTGACCTACACTCTGGCCACA
GAGGAAGCGGAACGCATTGGTGTAGACCACGTAGCCCGAATGACAGCAACAGGCAGTGGAGAGAACTCCACTGTG
GCTGAACACCTGATAGCACAGCACAGCGCCATCAAGATGCTGCACAGCCGCGTCAAGCTCATCTTGGAGTACGTC
AAGGCCTCTGAAGCGGGAGAGGTCCCCTTTAATCATGAGATCCTGCGGGAGGCTTATGCTGTGTCACTGTCTC
CCGGTGTCTCAGCACAGACAAGTTCAAGACAGATTTTTATGATCAATGCAACGACGTGGGGCTCATGGCCTACCTC
GGCACATCACAAAACGTGCAACACCATGAACAGTTTGTGAACAAGTTCAATGTCCTCTACGACCGACAAGGC
ATCGGCAGGAGAAATGCGCGGGCTCTTTTTT

Protein sequence data (fasta format)

>GDF9

HSWYSLHYKRRPSQGPQERSLSAYPVGEEAAEDGRSSHRRHRRGQETVSSELKKPLGPASFNLSEYFRQFLLPQ
NECELHDFRLSFSQLKWDNWIIVAPHRYNPRYCKGDCPRAVGHRYSVPVHTMVQNIIEYKLDSSVPRPSCVPKYS
PLSVLTIEPDGSIAYKEYEDMIATKCTCR

>GAPD

PVRQSAASSFASPAEPHRSDTMGKVKVGVNGFGRIGRLVTRAAFNSGKVDIVAINDPFIDLNYMVMFYQYDSTHG
KFHGTVKAENGLVINGNPITIFQERDPSKIKWGDAGAEEYVVESTGVFTTMEKAGAHLOGGAKRVIISAPSADAP
MFVMGVNHEKYDNSLKIISNASCTTNCLAPLAKVIHDNFGIVEGLMTTVHAITATQKTVDGPGSKLWRDGRGALQ
NIIPASTGAAKAVGKVIPELNGKLTGMAFRVPTANVSVDLTCRLEKPAKYDDIKKVVQASEGPKLGILGYTEH
QVVSDFNSDTHSSTFDAGAGIALNDHFVKLISWYDNEFGYSNRVVDLMAHMASKE

>MOV34

Figure 6 (continued)

AAAAAAAAATNGTGGSSGMEVDAAVVPVSMACGVTGSVSVALHPLVILNISDHWIRMRSQGRPVQVIGALIGKQ
EGRNIEVMNSFELLSHTVEEKIIIDKEYYYTKEEQFKQVFKELEFLGWYTTGGPPDPSDIHVHKQVCEIIESPLF
LKLNPMTKHTDATMLFAELTYTLATEEAERIGVDHVARMATGSGENSTVAEHLIAQHSIAKMLHSRVKLILEYV
KASEAGEVPFNHEILREAYALCHCLPVLSTDKFKTDFYDQCNDVGLMAYLGTITKTCNTMNQFVNKFNVLYDRQG
IGRRMRGLFF

Figure 6 (continued)

BEST AVAILABLE COPY

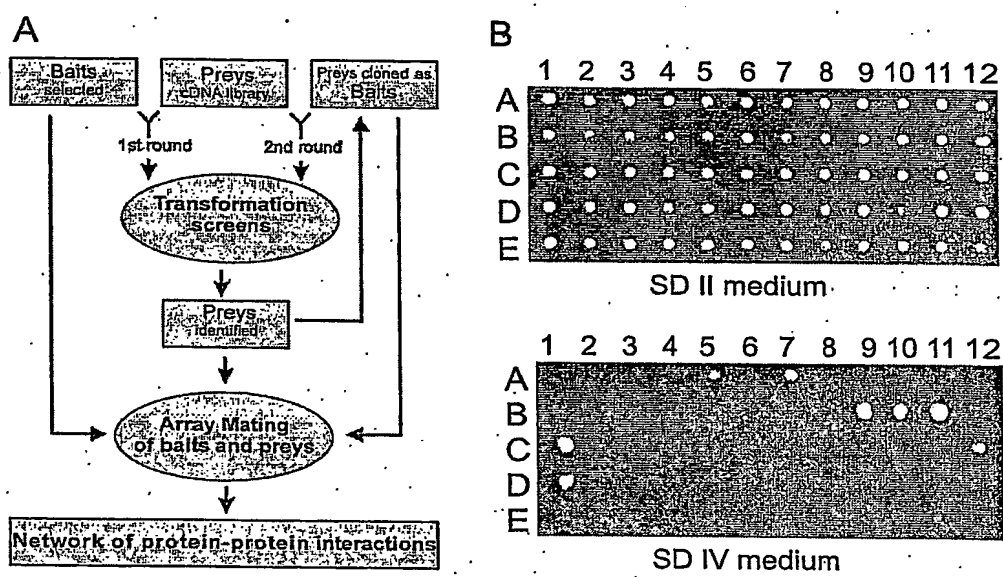


Figure 7

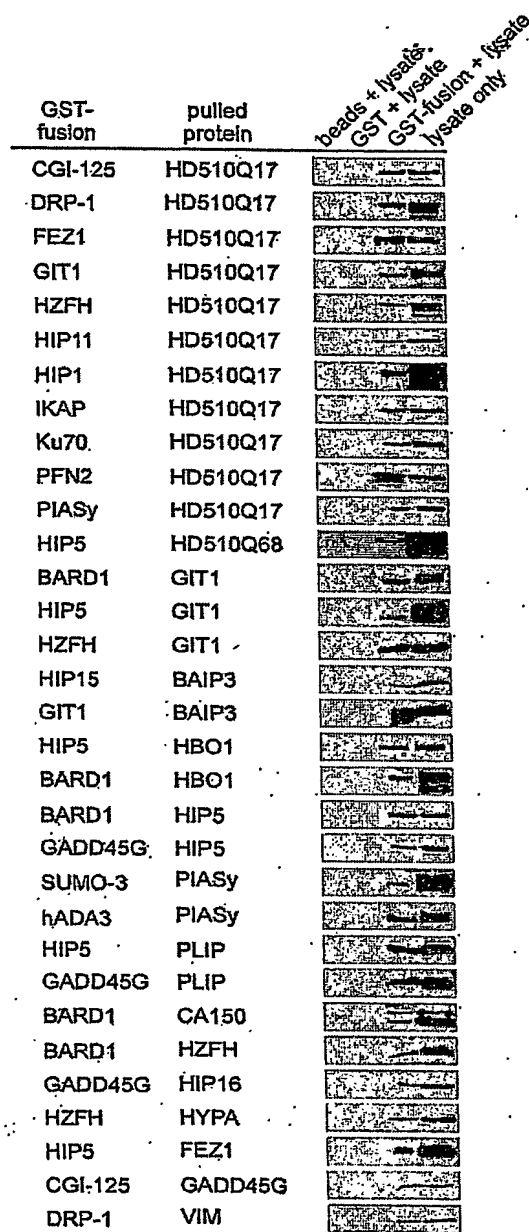
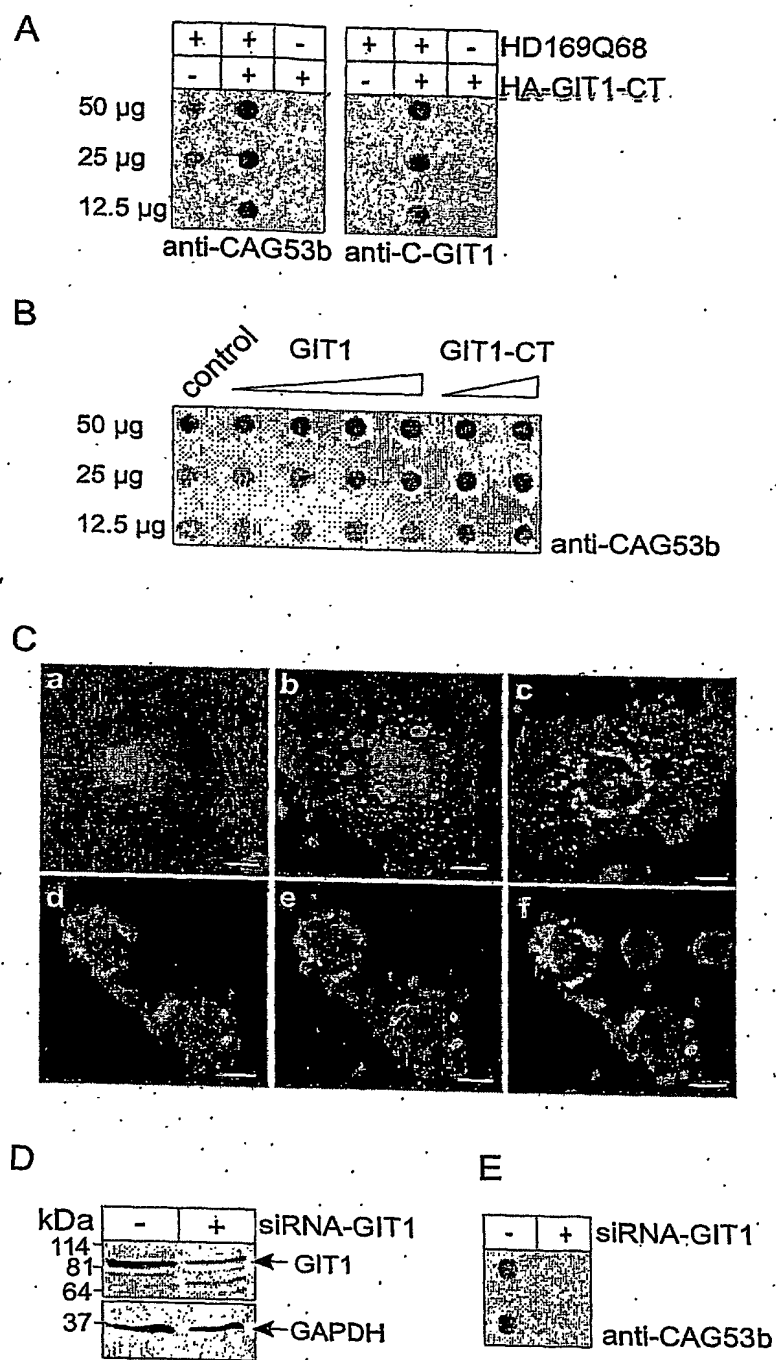


Figure 9

BEST AVAILABLE COPY



BEST AVAILABLE COPY

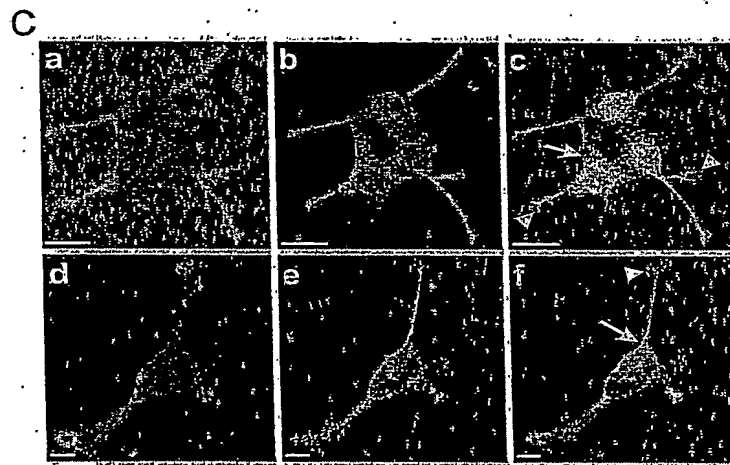
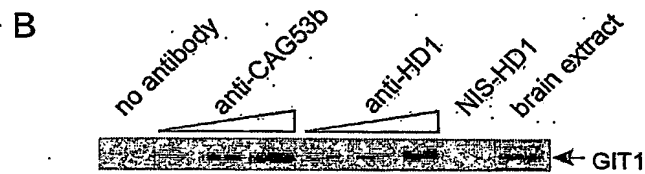
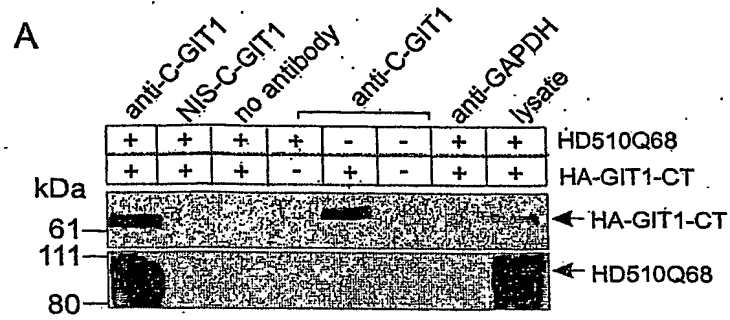


Figure 11

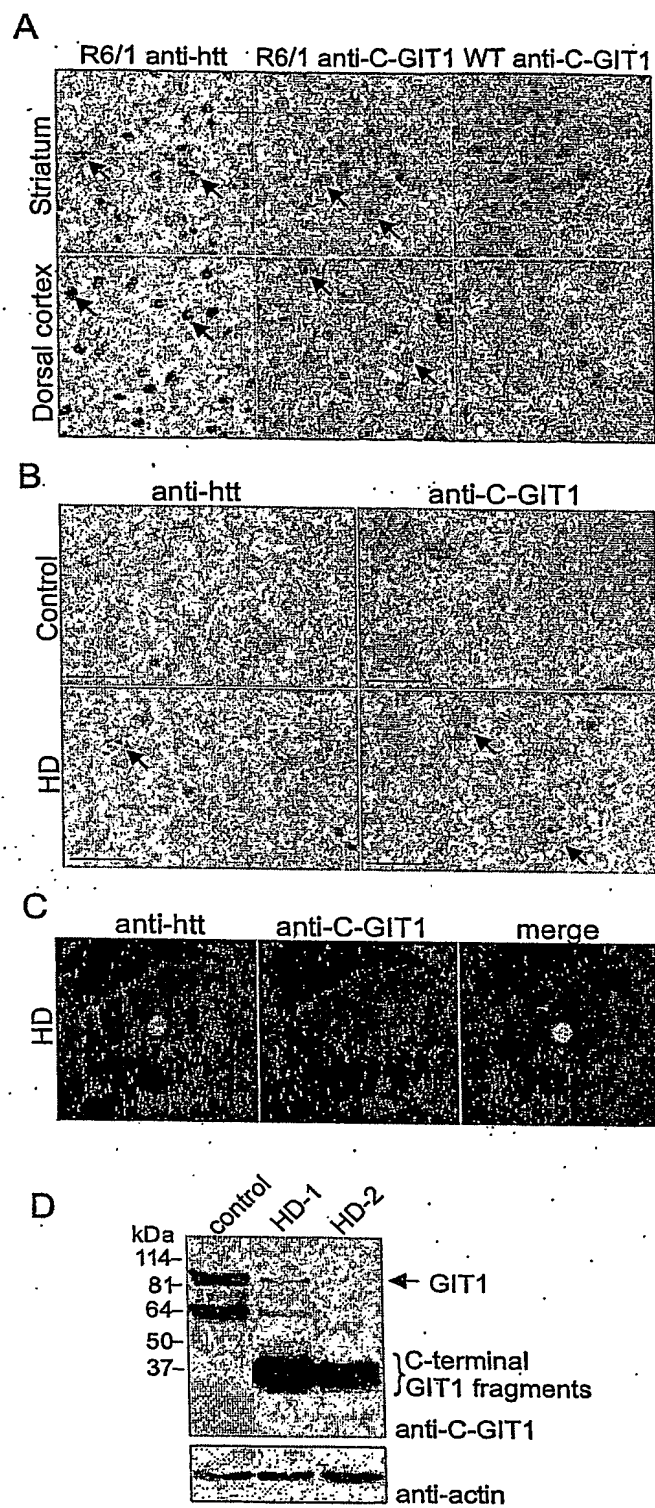


Figure 12

BEST AVAILABLE COPY

BEST AVAILABLE COPY

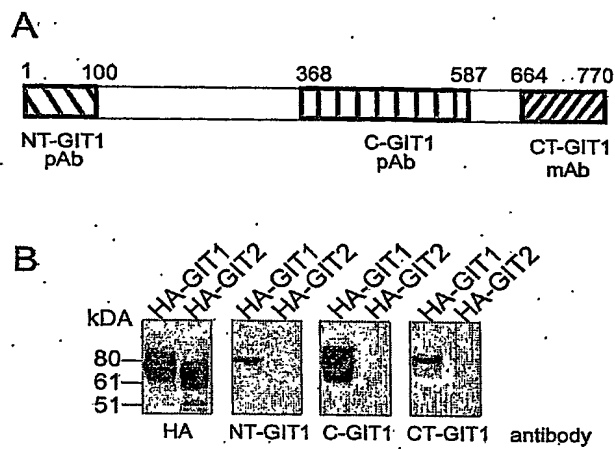


Figure 13